

baby lock

INSTRUCTION BOOKLET



MODEL BLE 1

"IMPORTANT SAFETY INSTRUCTIONS"

* This sewing machine/serger is intended for household use.

"When using a sewing machine, basic safety precautions always be followed, including the following.

"READ AND FOLLOW ALL INSTRUCTIONS"

DANGER To reduce the risk of electric shock.

1. The machine should never be left unattended when plugged in. Always unplug this machine from the electric outlet immediately after using and before cleaning.
2. Always unplug before relamping. Replace bulb with same type rated 15 watts in 110 volts area.(10 watts in 220 - 240 volts area)

WARNING To reduce the risk of burns, fire, electric shock, or injury to persons.

1. Do not allow to be used as a toy. Close attention is necessary when this machine is used by or near children.
2. Use this machine only for its intended use as described in this manual. Use only attachments recommended by the manufacture as contained in this manual.
3. Never operate this machine if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the machine to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
4. Never operate the machine with any air openings blocked. Keep ventilation openings of the sewing machine and foot controller free from the accumulation of lint, dust, and loose cloth.
5. Never drop or insert any object into any opening.
6. Do not use outdoors.
7. Do not operate where aerosol(spray) products are being used or where oxygen is being administered.
8. To disconnect, turn all controls to the OFF position, then remove plug from outlet.
9. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
10. Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
11. Always use the proper needle plate. The wrong plate can cause the needle to break.
12. Do not use bent needles.
13. Do not pull or push fabric while stitching. It may deflect the needle causing it to break.

14. Switch the sewing machine OFF when making any adjustments in the needle area, such as threading needle, changing needle, threading looper, or changing presser foot, and the like.
15. Always unplug sewing machine from the electrical outlet when removing covers, lubricating, or when making any other user servicing adjustments mentioned in the instruction manual.
16. Keep fingers away from moving parts, especially the area near the blades.

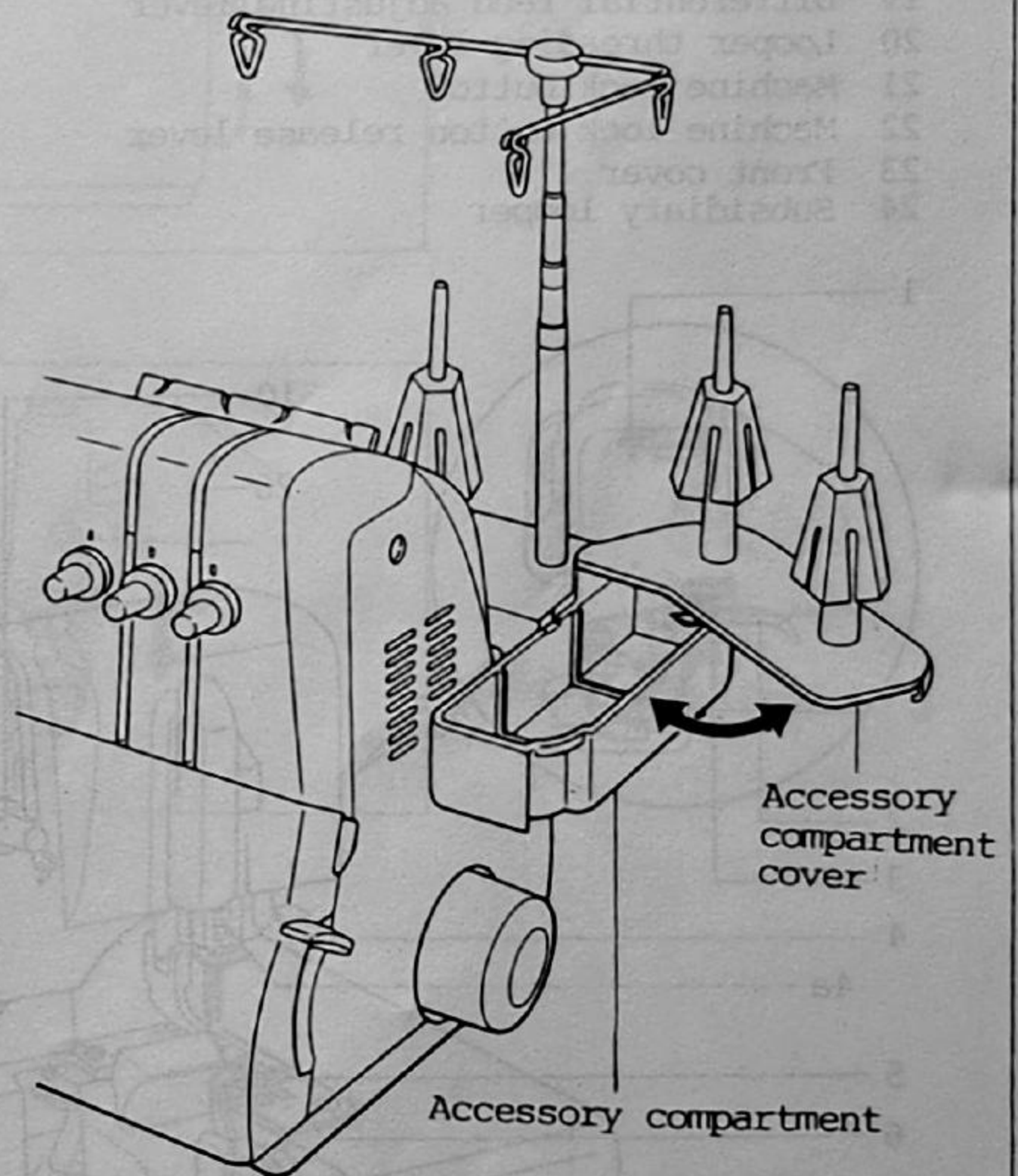
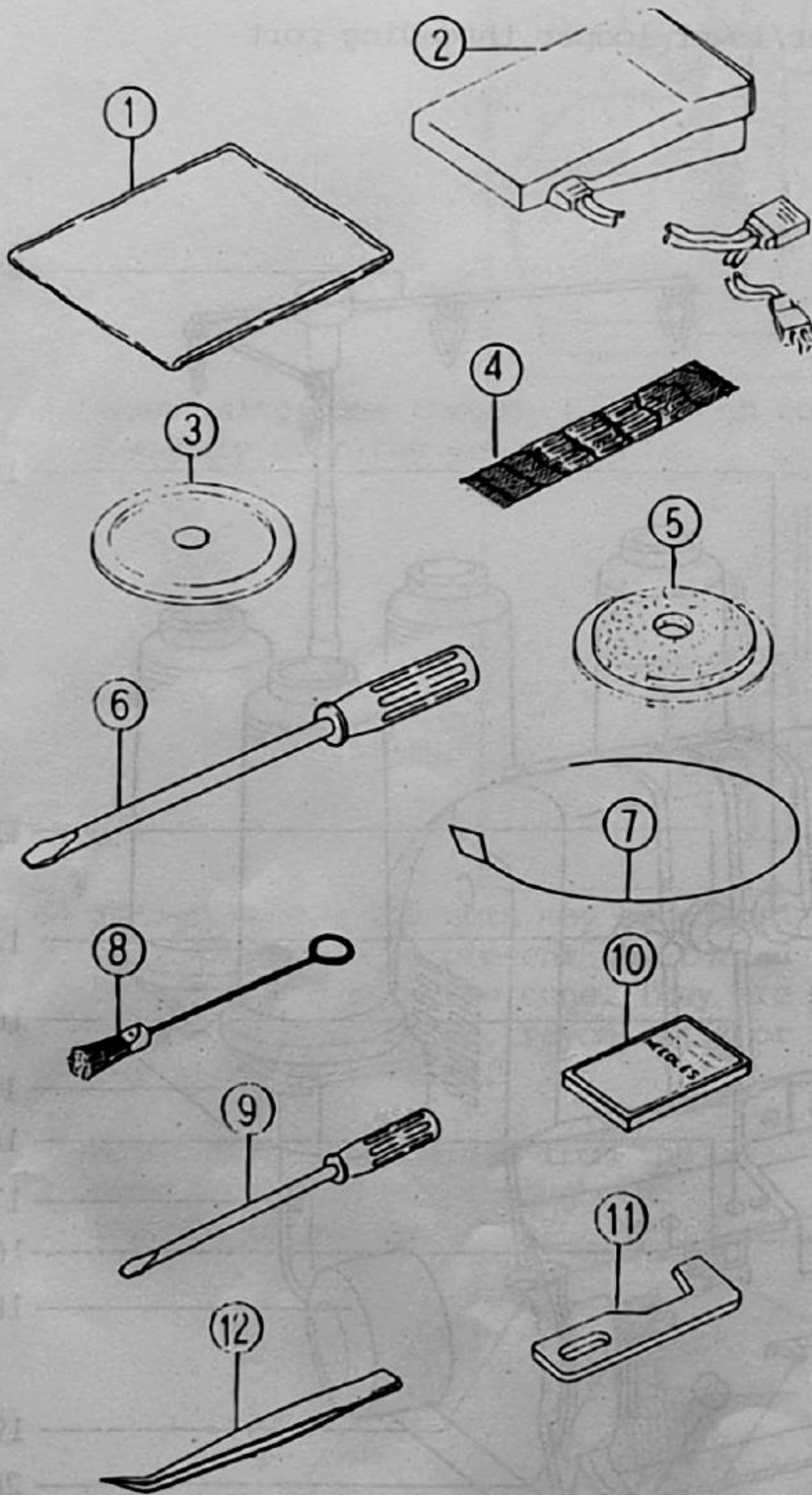
"SAVE THESE INSTRUCTIONS"

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ACCESSORIES

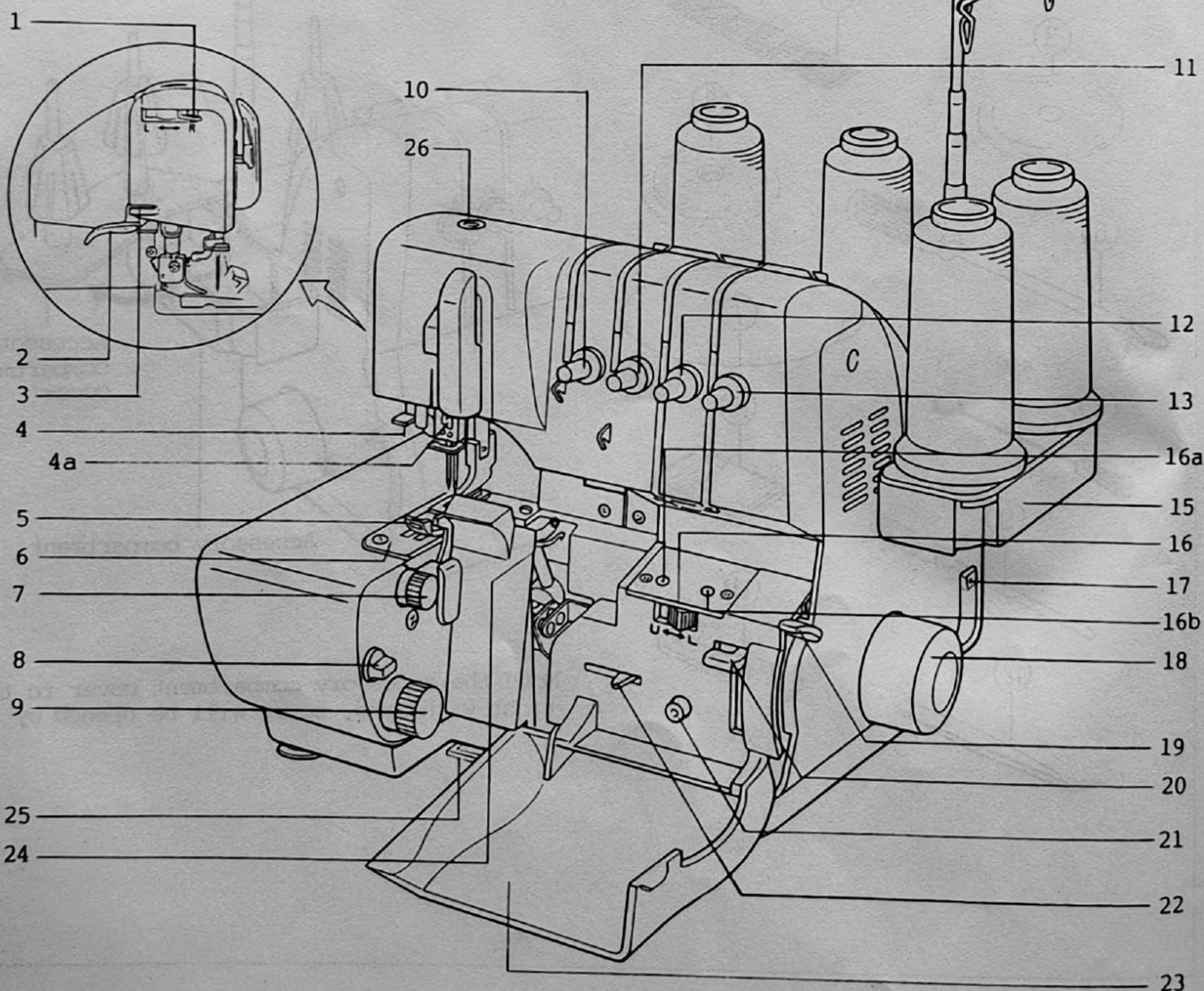
Accessory	Q'ty	Located
Instruction manual	1	Carton box
1. Machine cover	1	"
2. Foot controller	1	"
3. Spool caps	4	"
4. Thread nets	4	"
5. Sponge caps	4	"
6. Screwdriver(large)	1	"
7. Looper threader	1	"
8. Lint brush	1	Accessory compartment
9. Screwdriver(small)	1	"
10. Needle pack	5	"
11. Cutting knife (extra)	1	"
12. Curved tweezers	1	"



Move the accessory compartment cover to the right with hand, cover will be opened by 60°.

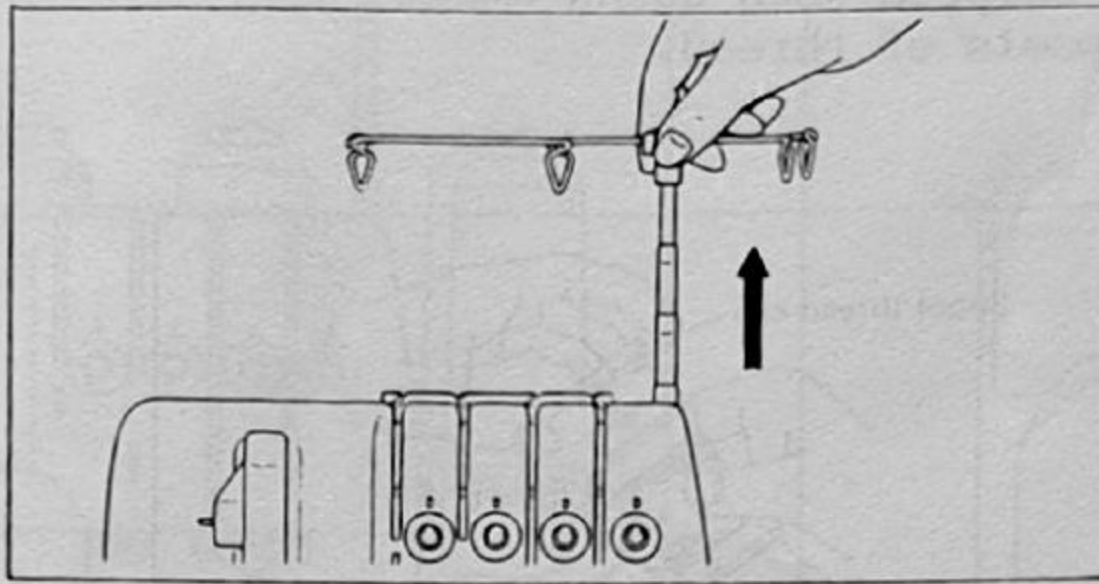
OVERVIEW THE MACHINE

- 1 Needle threader selector
- 2 Presser foot lifter/tension release lever
- 3 Thread cutter
- 4 Needle threader
- 4a - viewing area of needle height
- 5 Presser foot
- 6 Needle plate
- 7 Stitch width adjusting dial
- 8 Knife position selector knob(with lock knife feature)
- 9 Stitch length & rolled hem adjuster dial
- 10 Left needle thread tension adjuster
- 11 Right needle thread tension adjuster
- 12 Upper looper thread tension adjuster
- 13 Lower looper thread tension adjuster
- 14 Telescopic thread guide
- 15 Accessory compartment
- 16 Looper threading selector 16a & 16b Upper/lower looper threading port
- 17 ON/OFF switch
- 18 Handwheel
- 19 Differential feed adjusting lever
- 20 Looper threading lever
- 21 Machine lock button
- 22 Machine lock button release lever
- 23 Front cover
- 24 Subsidiary looper
- 25 Needle drop drawer
- 26 Presser foot pressure adjuster screw

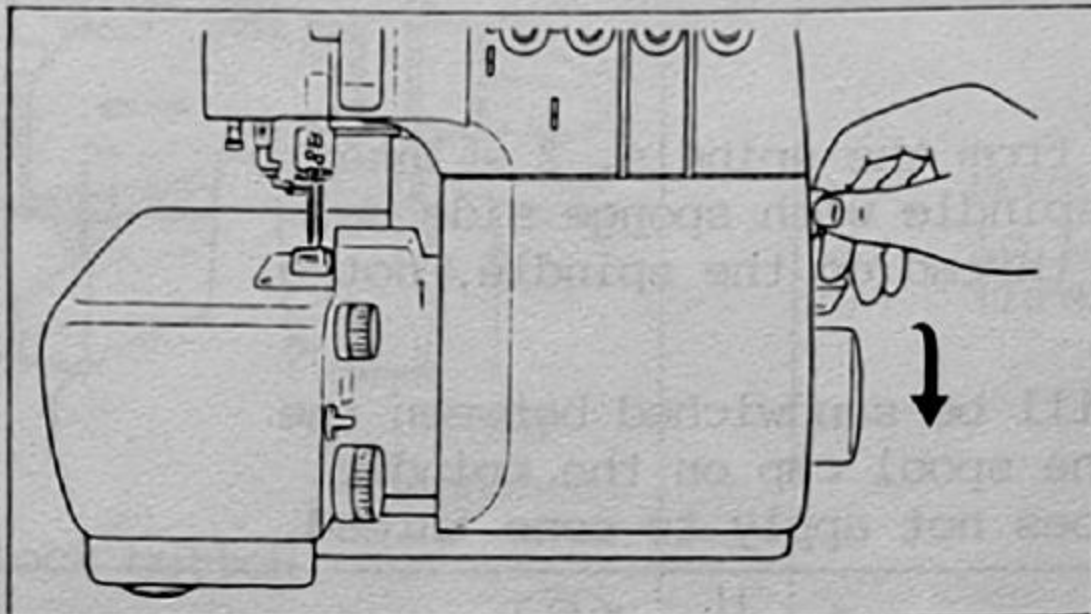


1 GETTING READY TO SEW

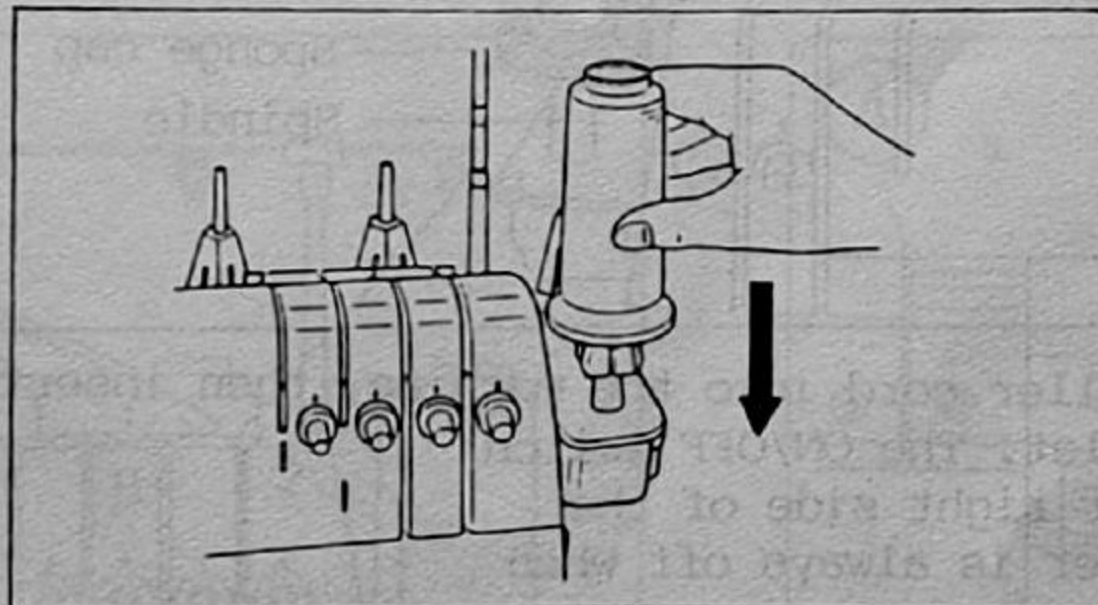
- a) Raise the telescopic thread guide to its highest position, and rotate the shaft to the left or right until each section "clicks" into a locked position.



- b) To open the front cover, pull the tab forward.

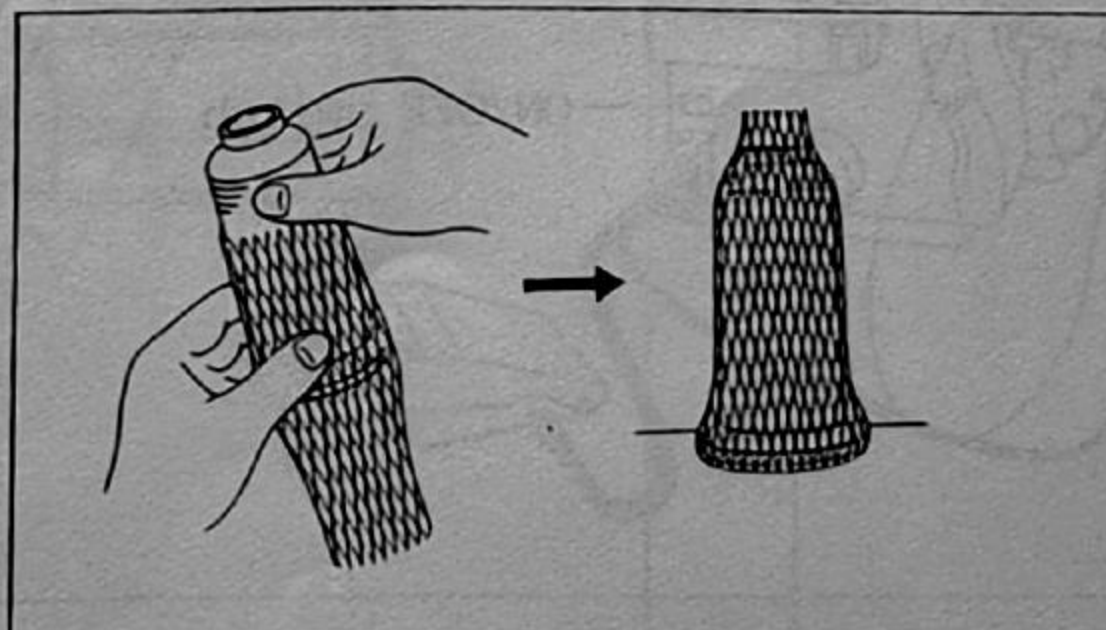


- c) When using cone thread, place each cone securely over the cone holders.



- d) Thread nets - The nets may be placed over the cones to prevent the thread dropping off from the cone. They are mainly used on nylon, rayon, silk or any slipping threads.

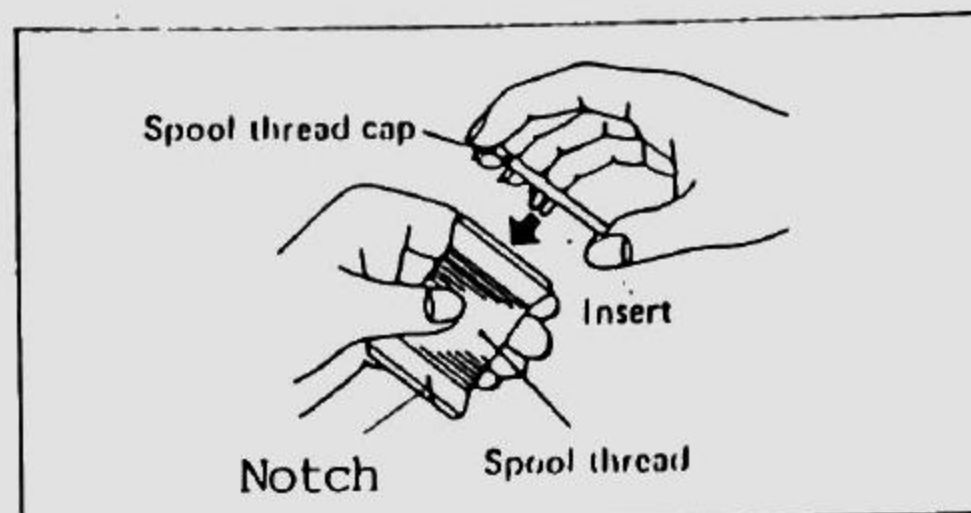
Note: Make sure thread from the cone is coming off through the top the thread net.



- e) When using a standard spool of thread, the spool caps should be used to enable the thread to reel off freely.

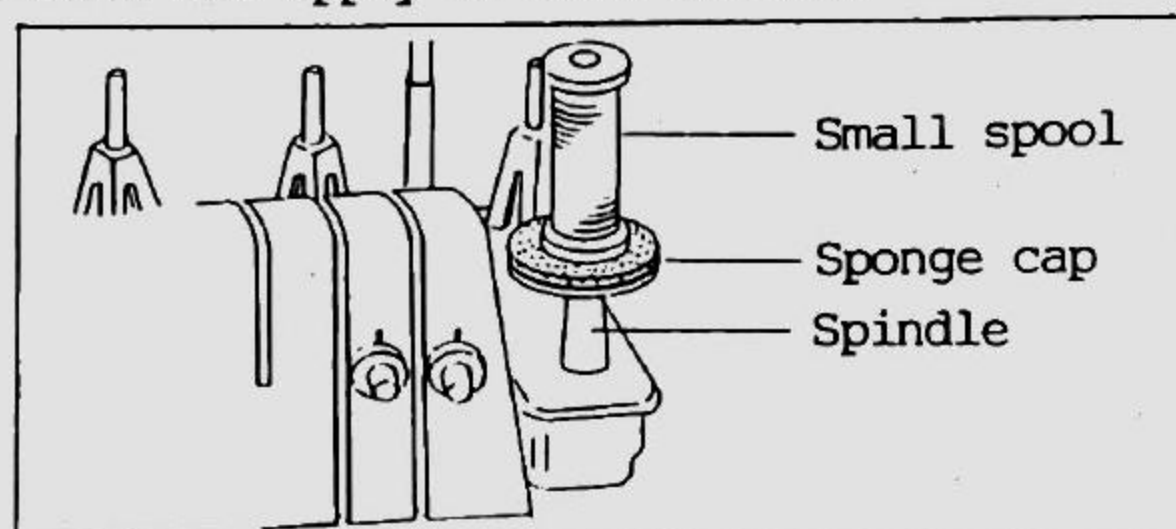
With the notch side down, insert the spool cap into the top of the spool of thread.

NOTE: This step may be skipped when using small and/or slender spools of thread.

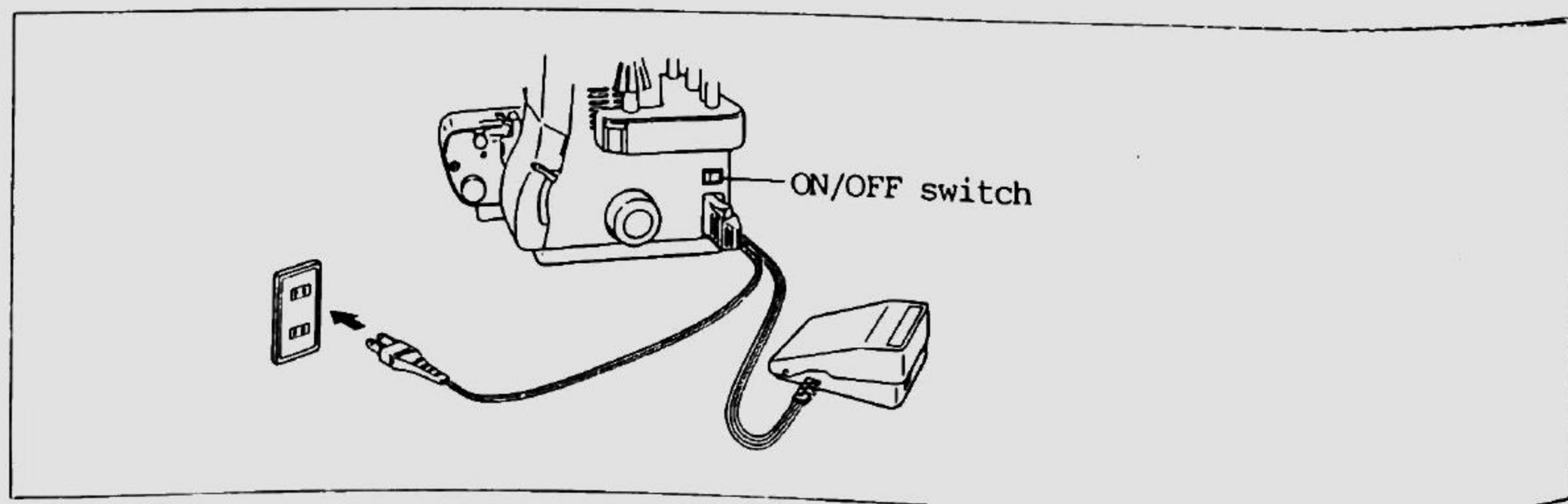


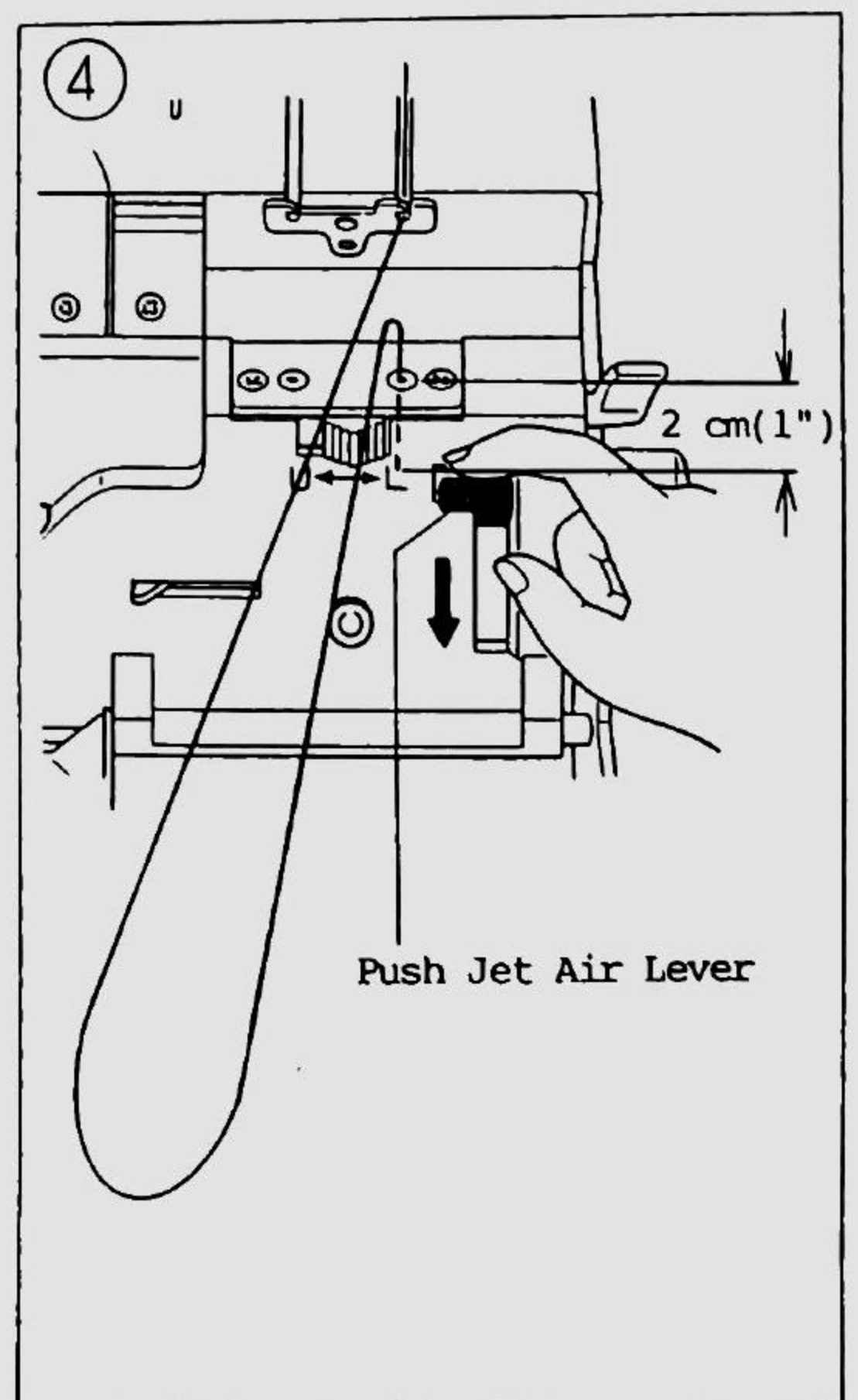
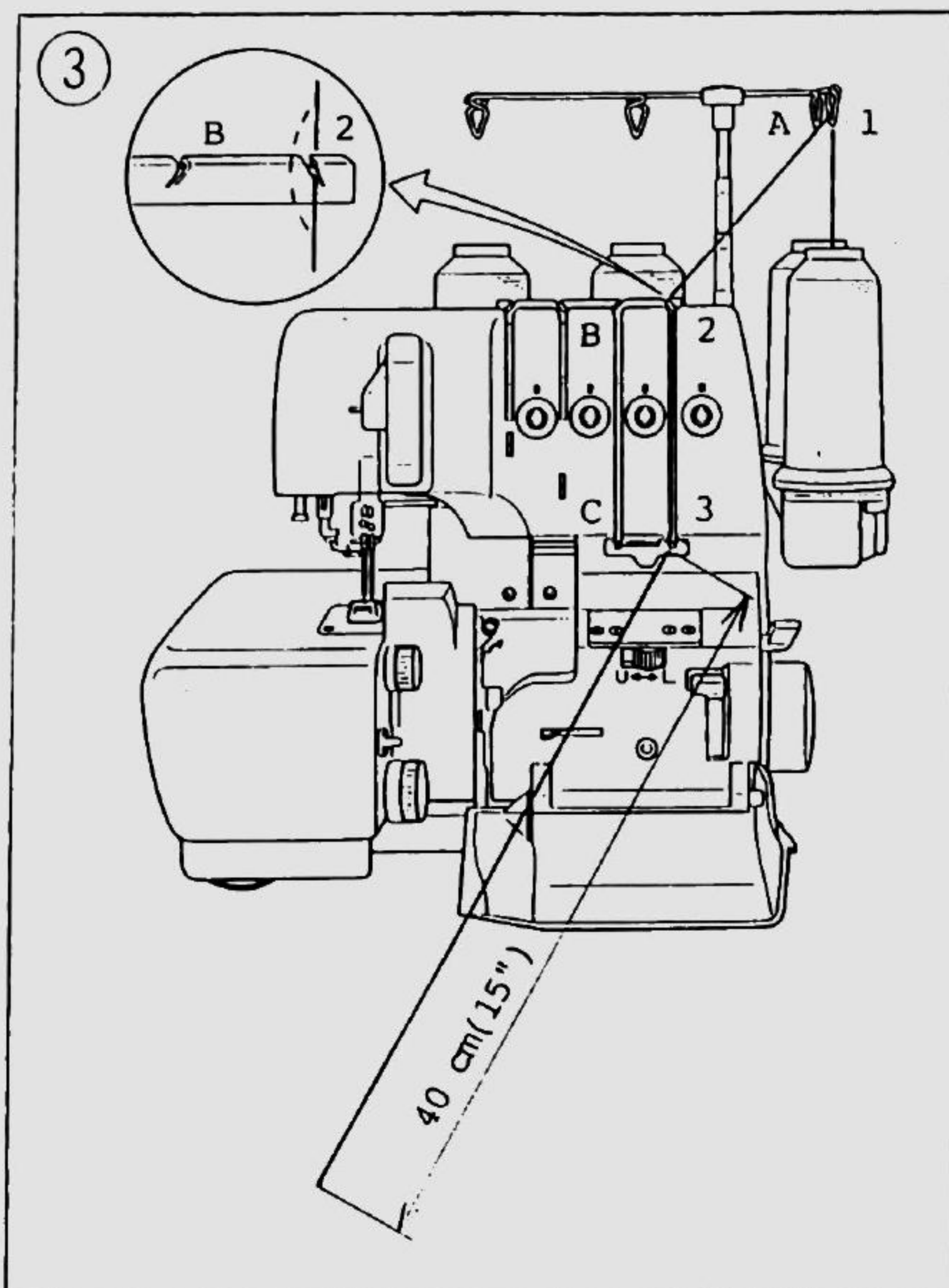
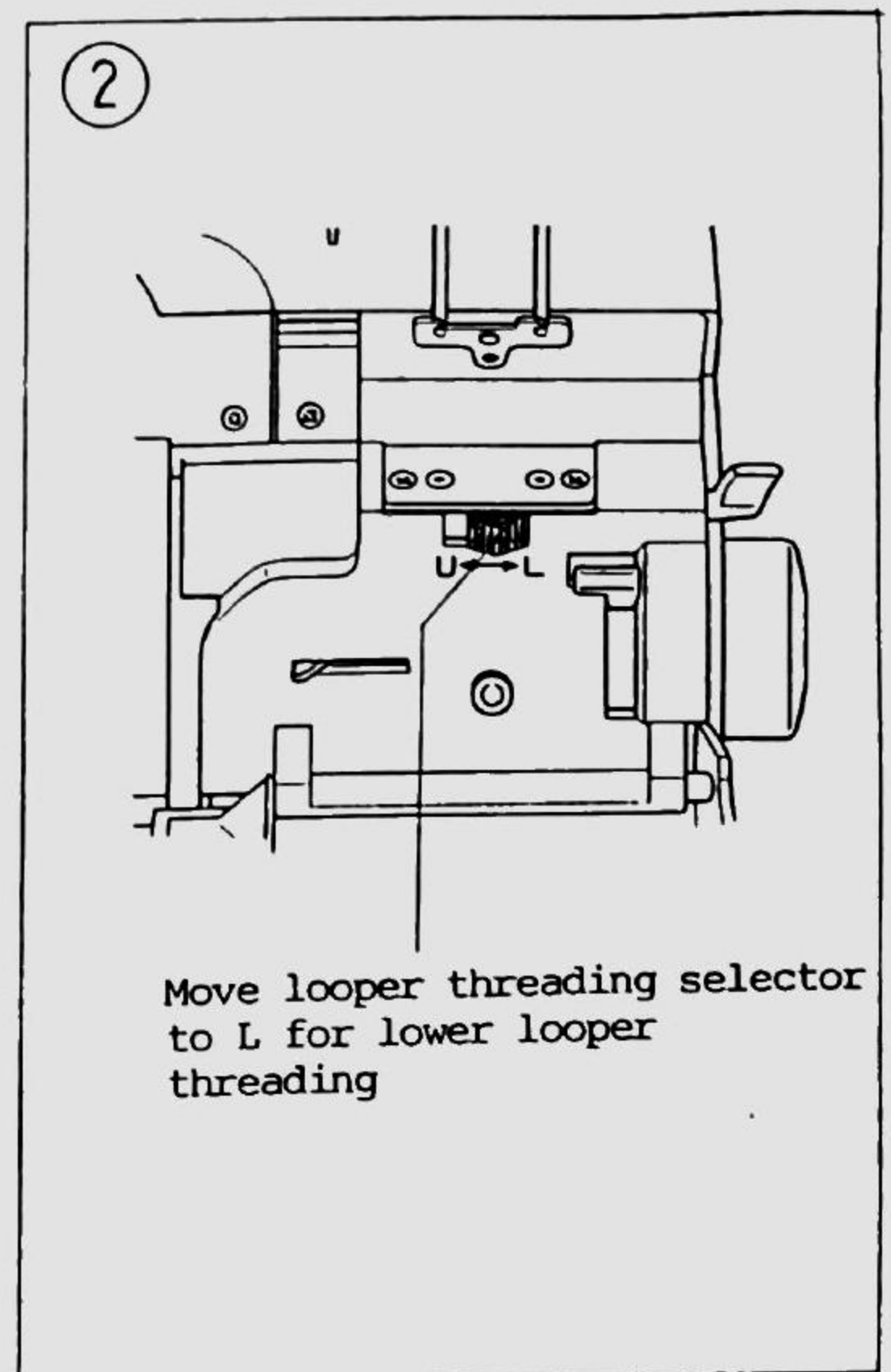
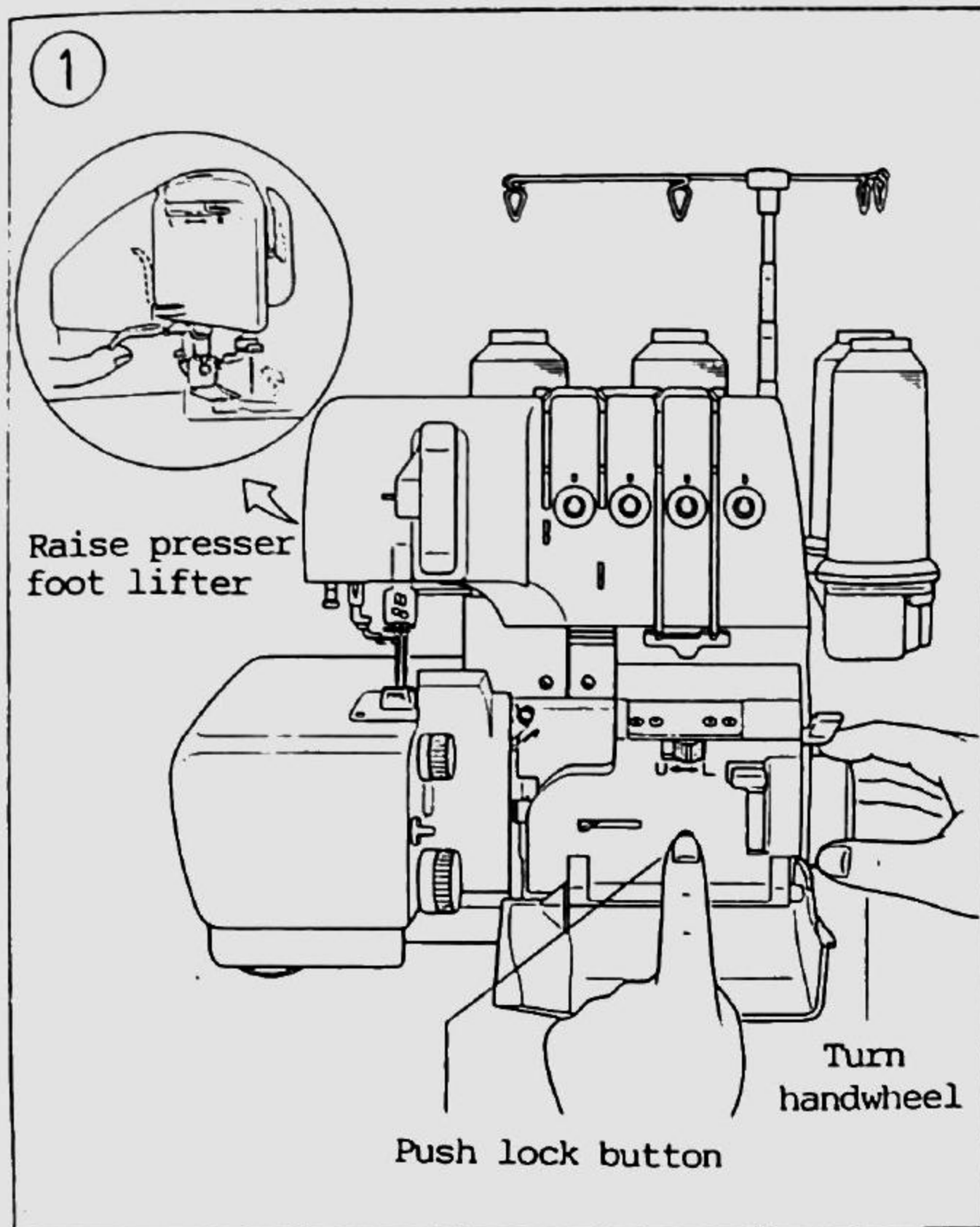
- f) 1 - Remove cone holder from the spindle. 2 - Insert the sponge cap on the spindle with sponge side up. 3 - Place the spool of thread on the spindle, notch side down.

NOTE: Standard spool will be sandwiched between the sponge cap and the spool cap on the spindle.
This procedure does not apply to cone thread.



- g) First plug foot controller cord into the machine, then insert the plug into wall outlet. The ON/OFF switch is located on the lower right side of the machine. Make sure power is always off when machine is not in use.





2 THREADING - MANUAL

Your Baby Lock is equipped with the "Jet-Air Threading System" for lower and upper looper threading. No tools or threading is necessary.

Simply push the "Jet-Air Lever". Lower and upper looper threads will come out from each looper eye through threading pipes in the machine cover. If thread breaks or runs out, rethread its thread only.

2-1 Lower and upper looper threading

* For lower looper threading

1. Open the front cover and raise the presser foot lifter.
2. While pushing the machine lock button firmly with left index finger. Rotate the machine handwheel by hand slowly until the button snaps into place (locked position).

When this happens the button release lever will automatically move to the far left.

3. Set the looper threading selector to L (for lower looper threading).
4. Place the thread on the far right spindle of the thread holder. Thread 1 & 2 thread guides through the groove of the face plate and thread guide 3 (see illustration #3).

Pull the thread about 40cm(15") from the thread guide 3.

NOTE: Do not hold or twist its thread. Always its thread must be free.

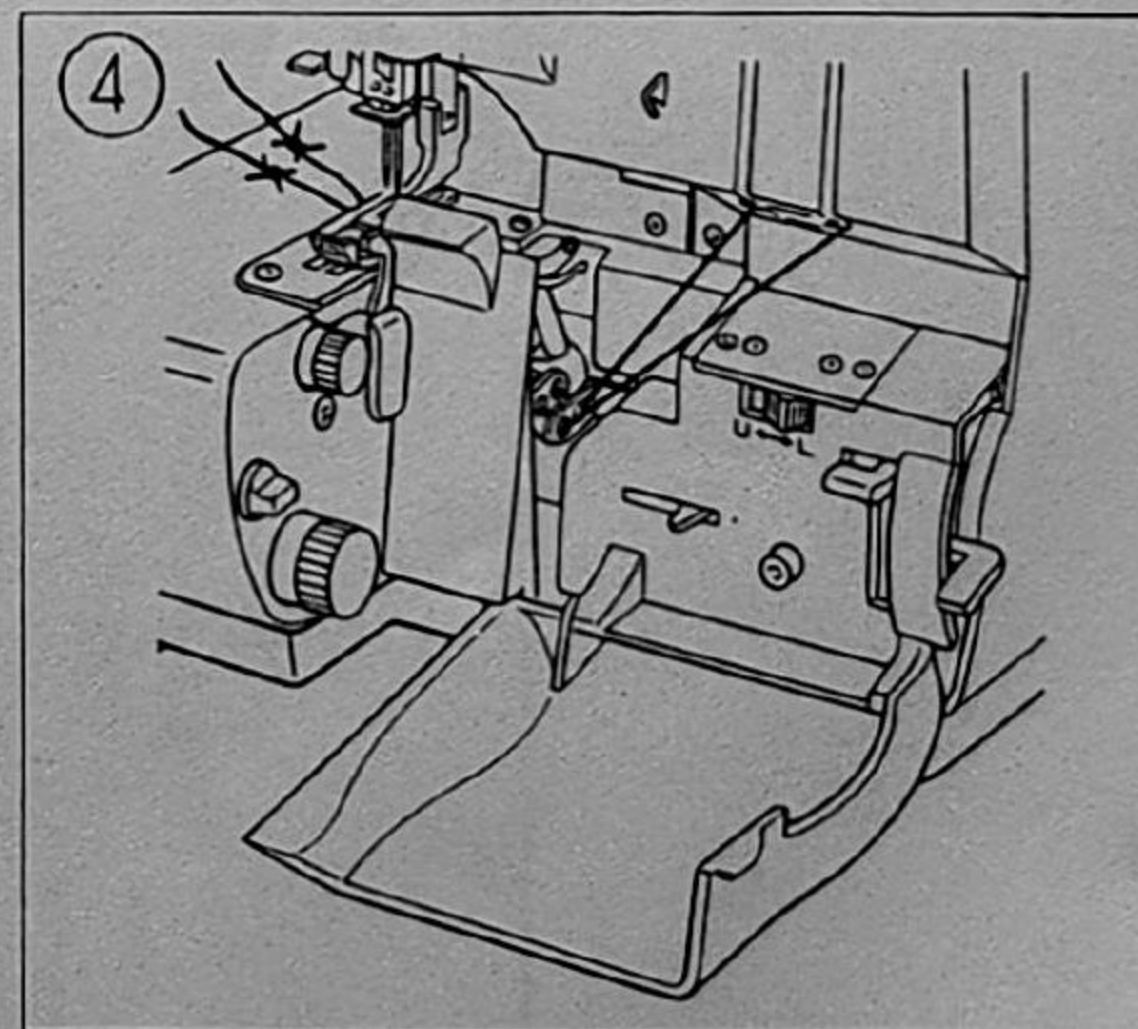
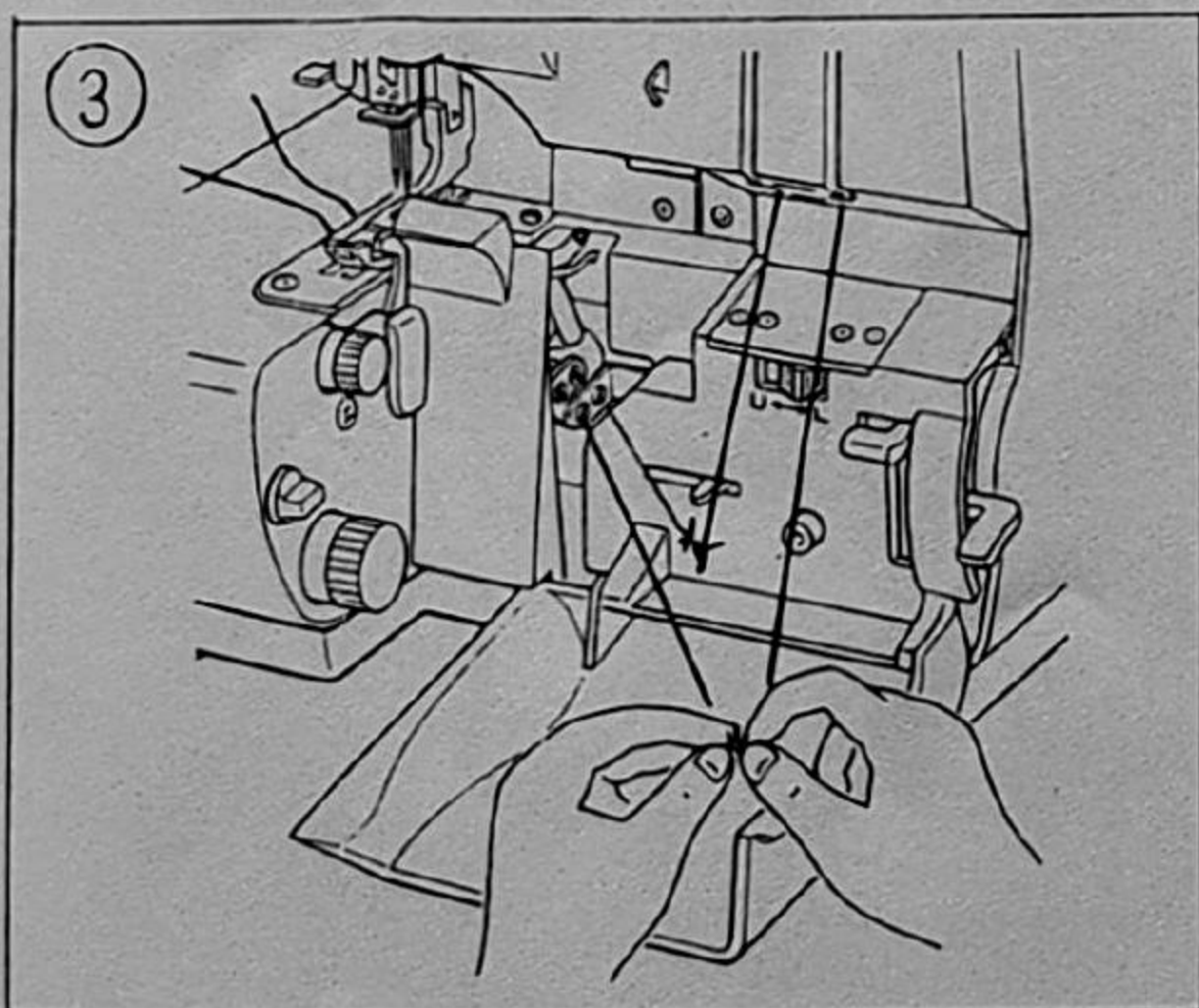
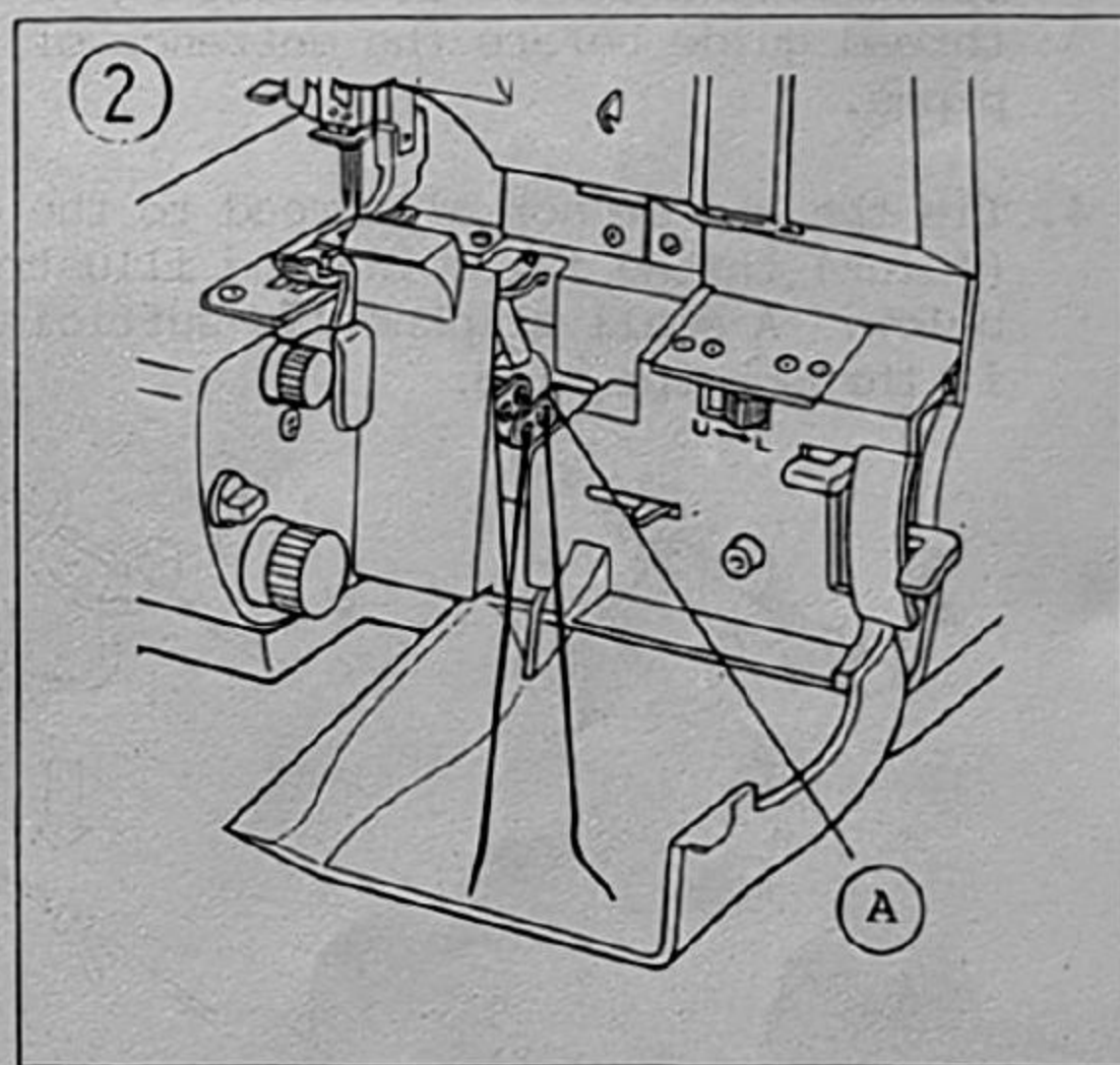
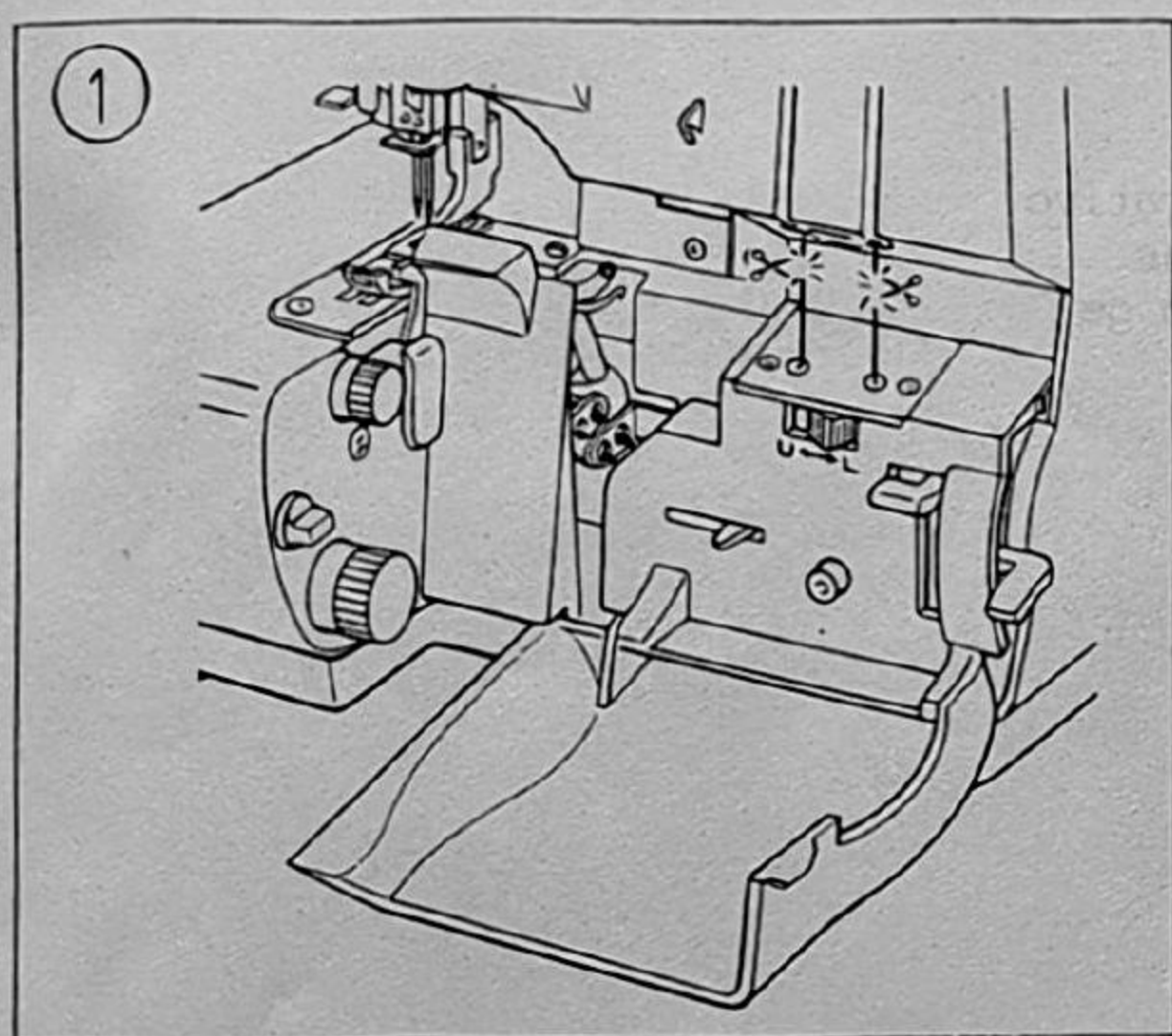
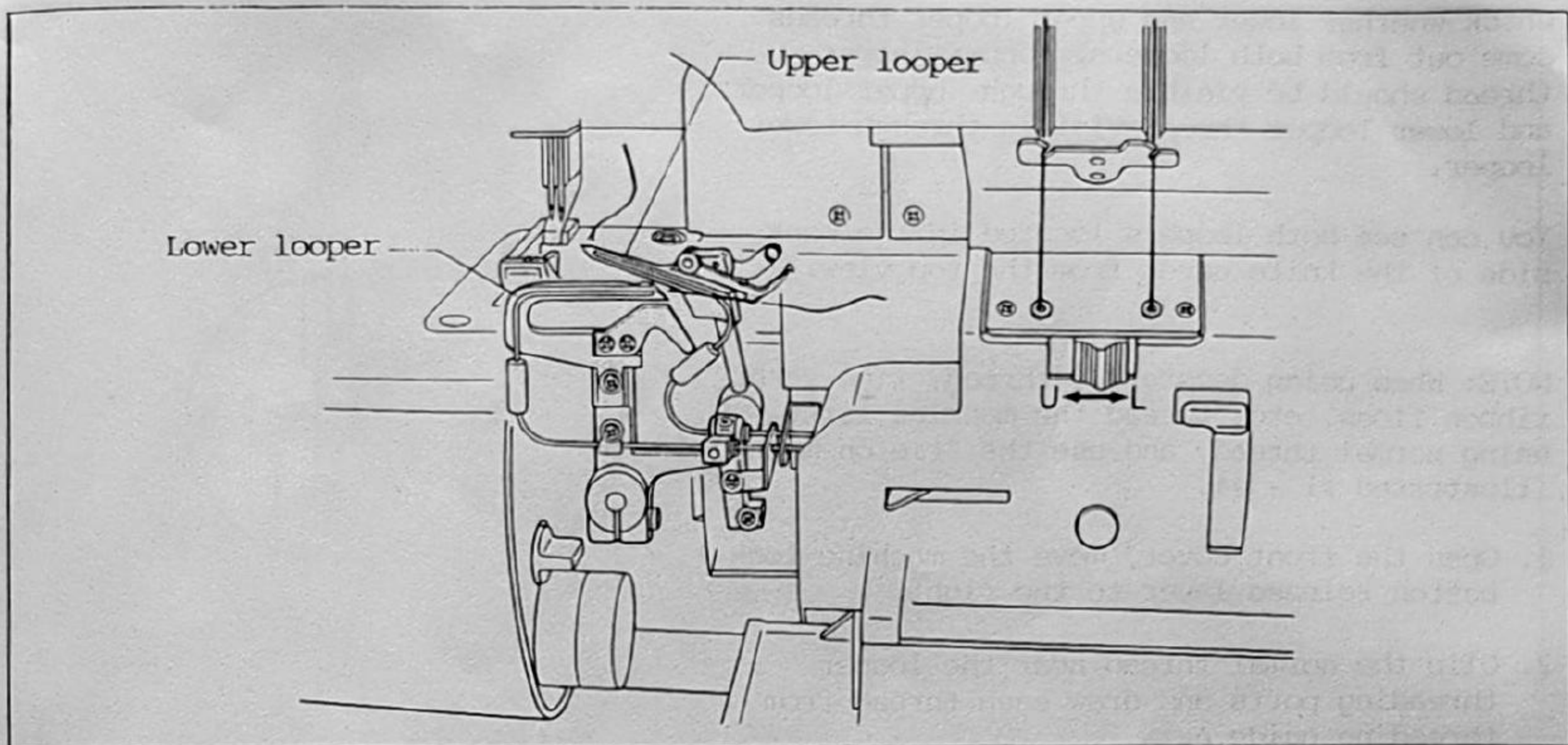
5. Insert the thread into the right threading port about 2cm(approx. 1").
6. Gently push the "Jet-Air Lever".

NOTE: If thread does not come through looper eye with one push, push the lever again.

7. Lower looper thread should now be visible through lower looper eye.

* For upper looper threading

1. Set the looper threading selector to U (for upper looper threading).
2. Place the thread on the third spindle of the thread holder. Thread A & B thread guides, through the groove of the face plate and thread guide C (see illustration #3).
3. Pull the thread about 40cm(15") from the thread guide C, insert it into the left threading port about 2cm(1").
4. Push the "Jet-Air Lever".

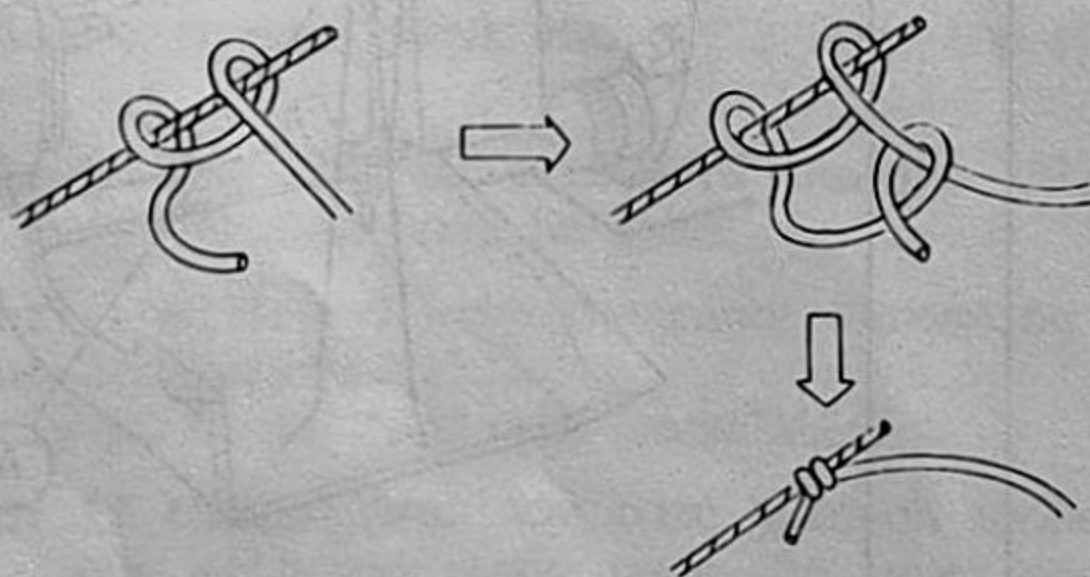


Check whether lower and upper looper threads come out from both loopers. Upper looper thread should be visible through upper looper and lower looper thread visible through lower looper.

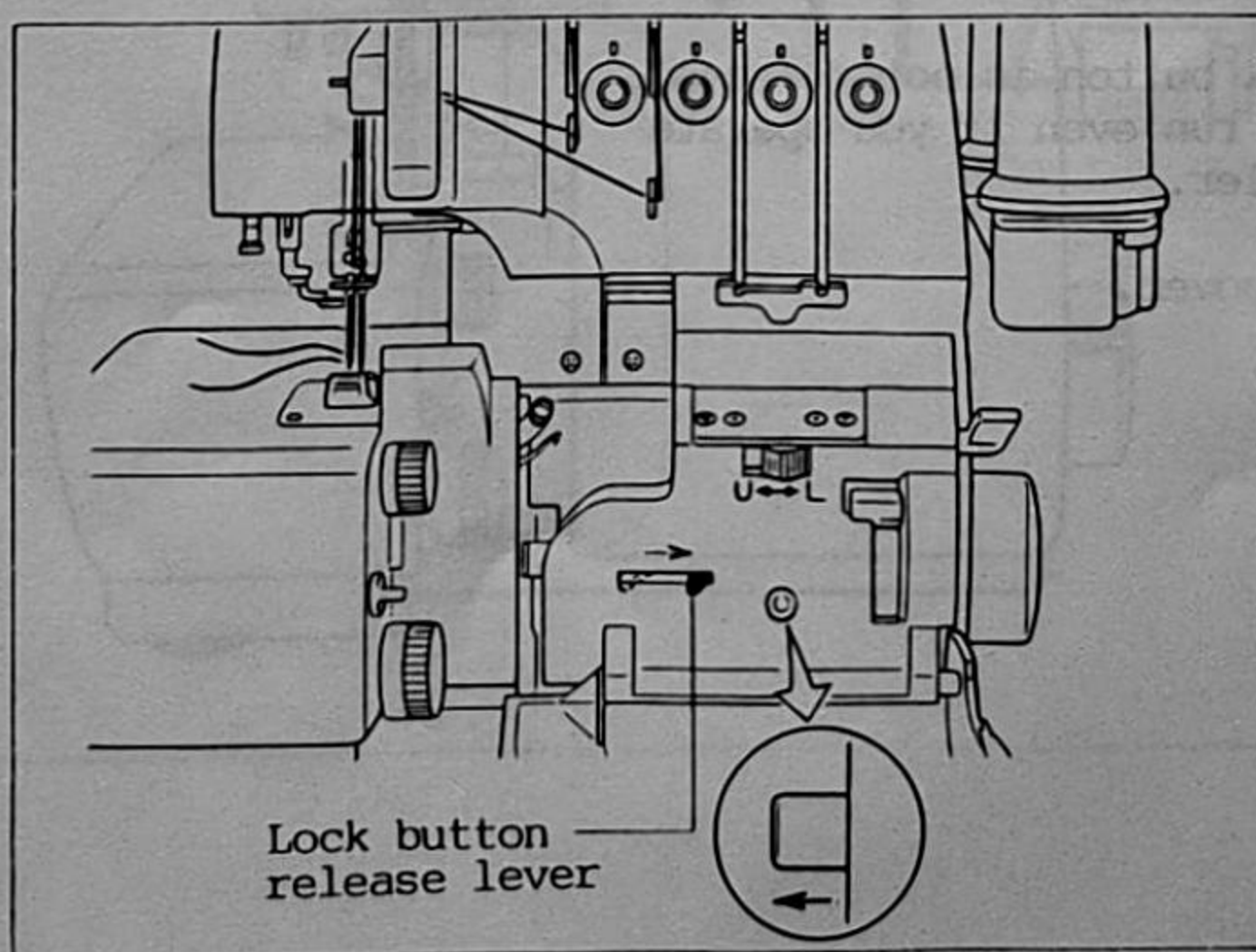
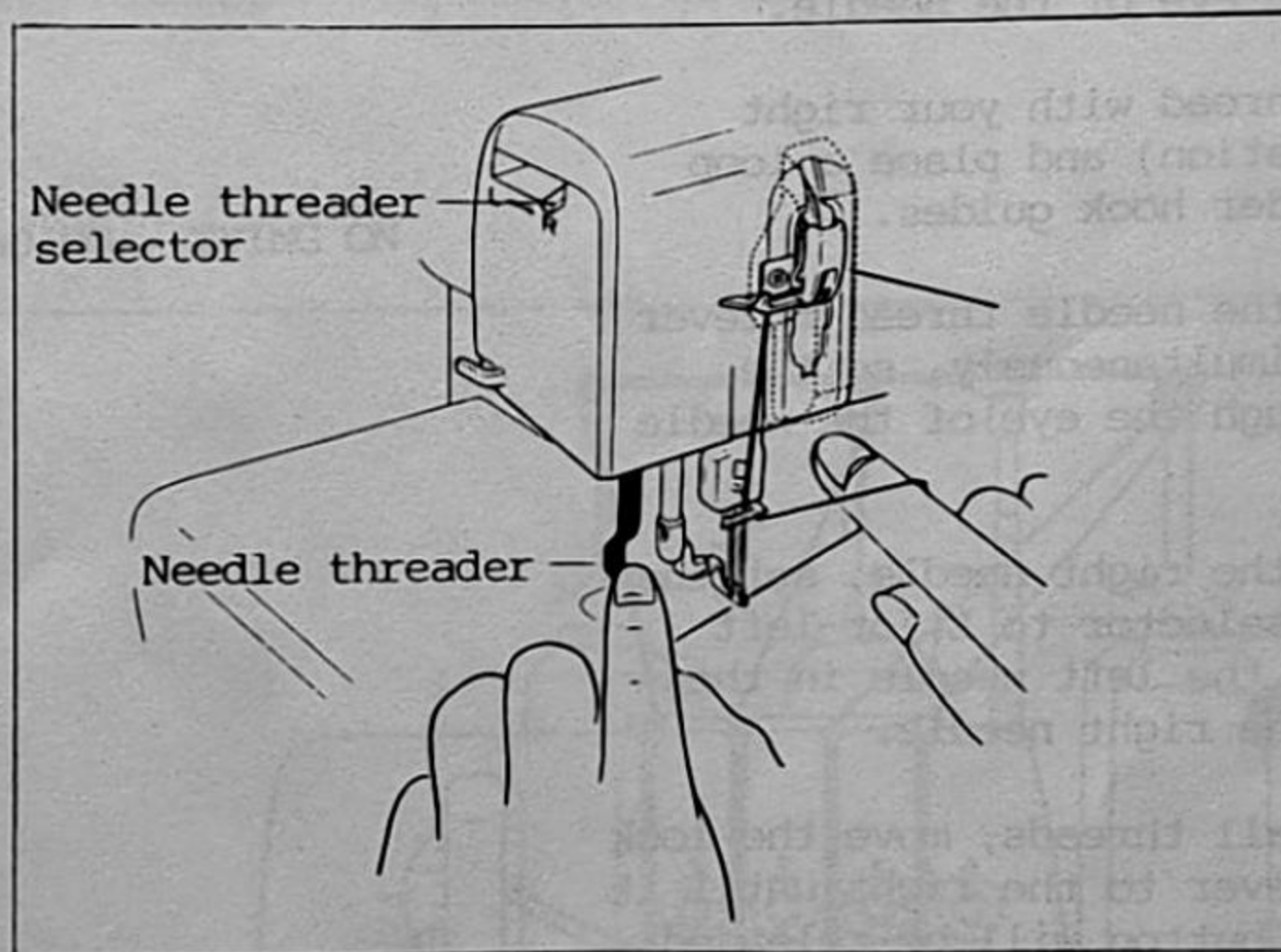
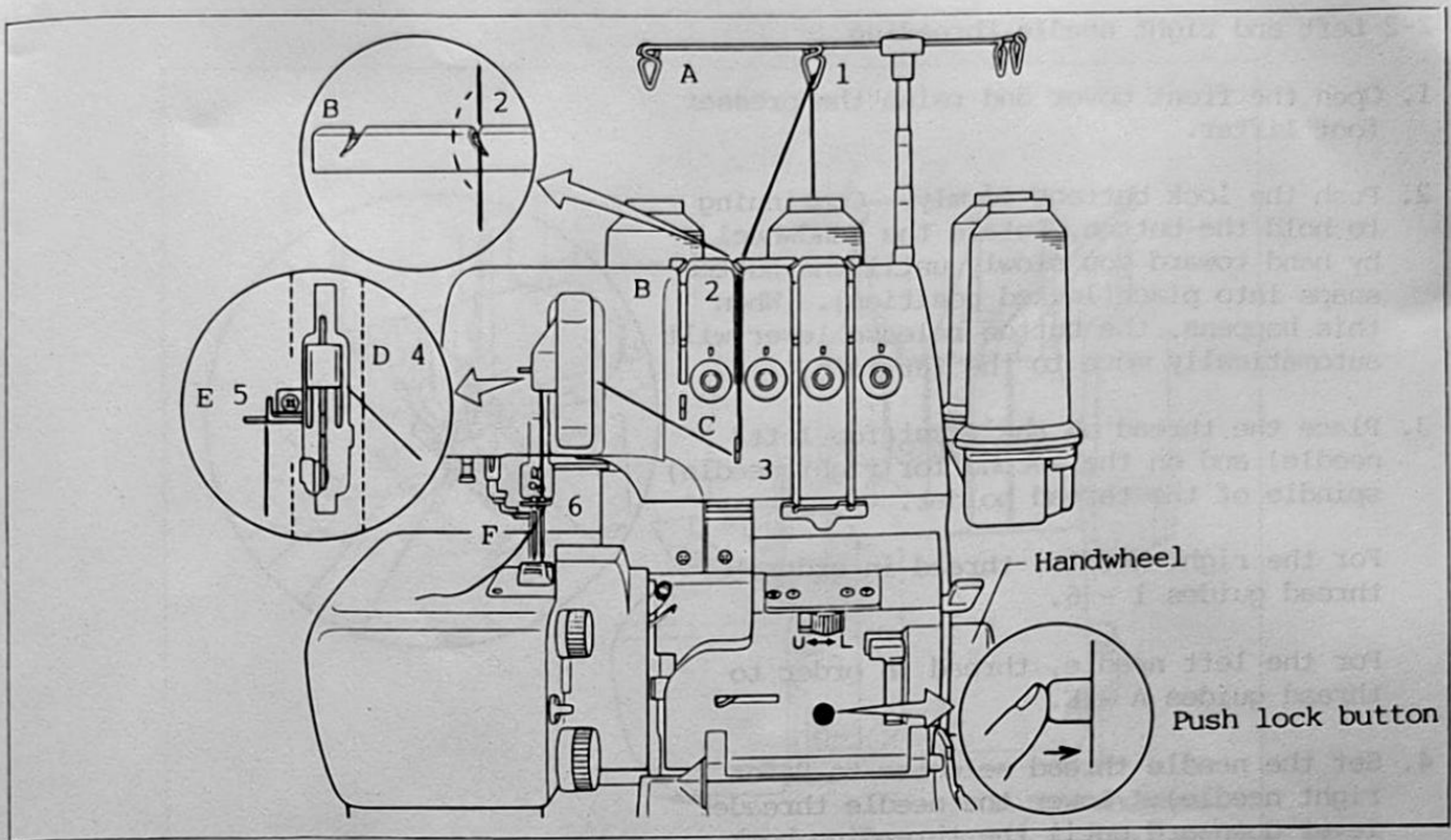
You can see both loopers located in the back side of the knife cover from the top view.

NOTE: When using decorative thread, fine yarn, ribbon floss, etc, thread the machine first using normal thread, and use the "tie on method" illustrated #1 - #4.

1. Open the front cover, move the machine lock button release lever to the right.
2. Clip the normal thread near the looper threading ports and draw each thread from threading guide A.
3. Place the decorative(thick) thread on the spindles and thread it according to the thread guide before the entrance of looper pipes.
4. Tie the end of normal thread to the decorative (thick) thread following the illustrations below. A small slipknot is sufficient to get it through the pipe.



5. Draw thread through eye of loopers.



2-2 Left and right needle threading

1. Open the front cover and raise the presser foot lifter.
2. Push the lock buttonh firmly. Continuing to hold the button, rotate the handwheel by hand toward you slowly until the button snaps into place(locked position). When this happens, the button release lever will automatically move to the far left.
3. Place the thread on the first(for left needle) and on the second(for right needle) spindle of the thread holder.

For the right needle, thread in order to thread guides 1 - 6.

For the left needle, thread in order to thread guides A - E.

4. Set the needle thread selector to R(for right needle). Lower the needle threader lever downward until the threading hook comes through the eye of the needle.

Form a loop of thread with your right hand(see illustration) and place a loop around the threader hook guides.

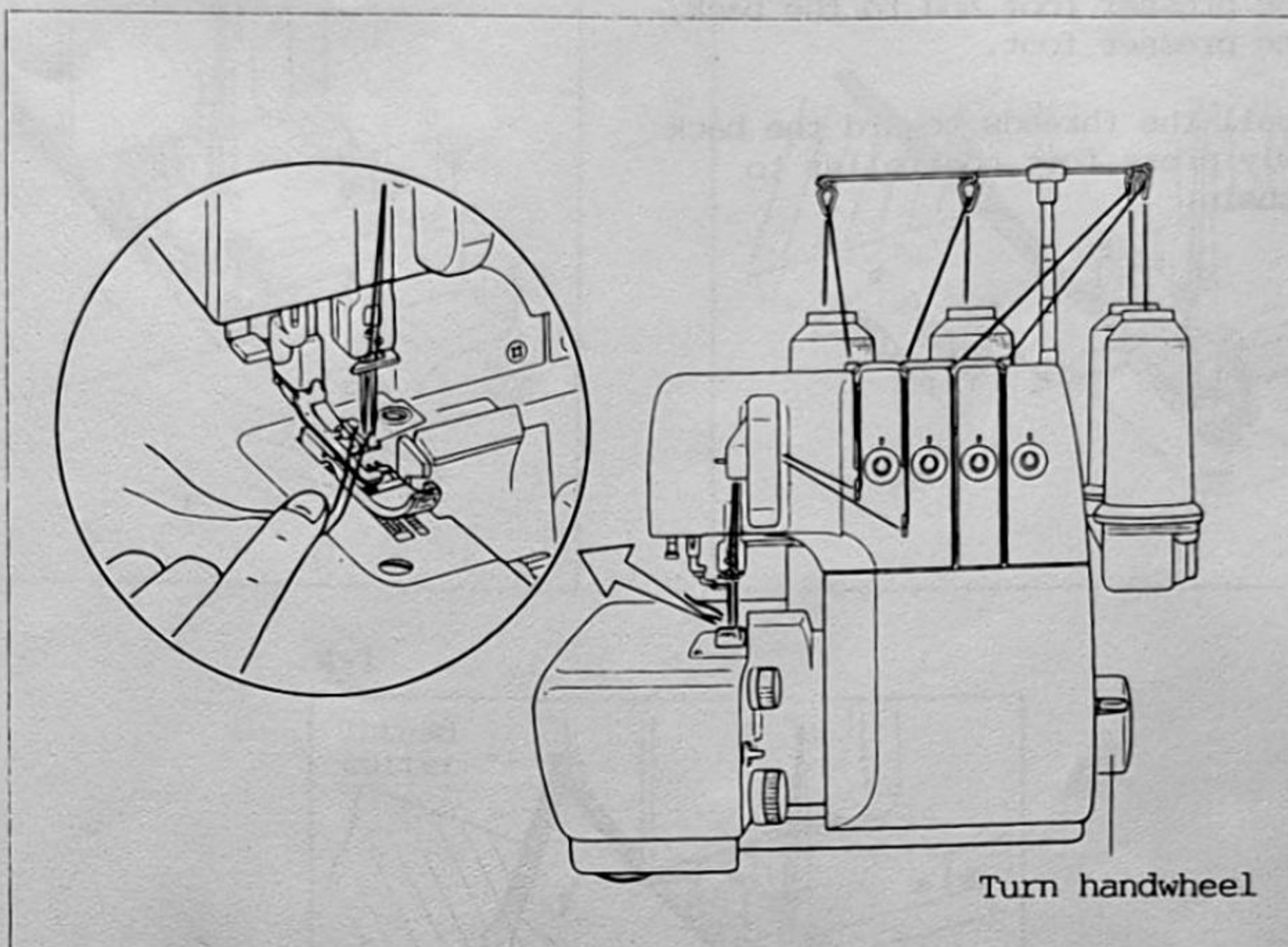
Slowly, release the needle threader lever and the thread simultaneously, so the thread goes through the eye of the needle in a loop form.

After threading the right needle, set the needle threader selector to L(for left needle). Thread the left needle in the same manner as the right needle.

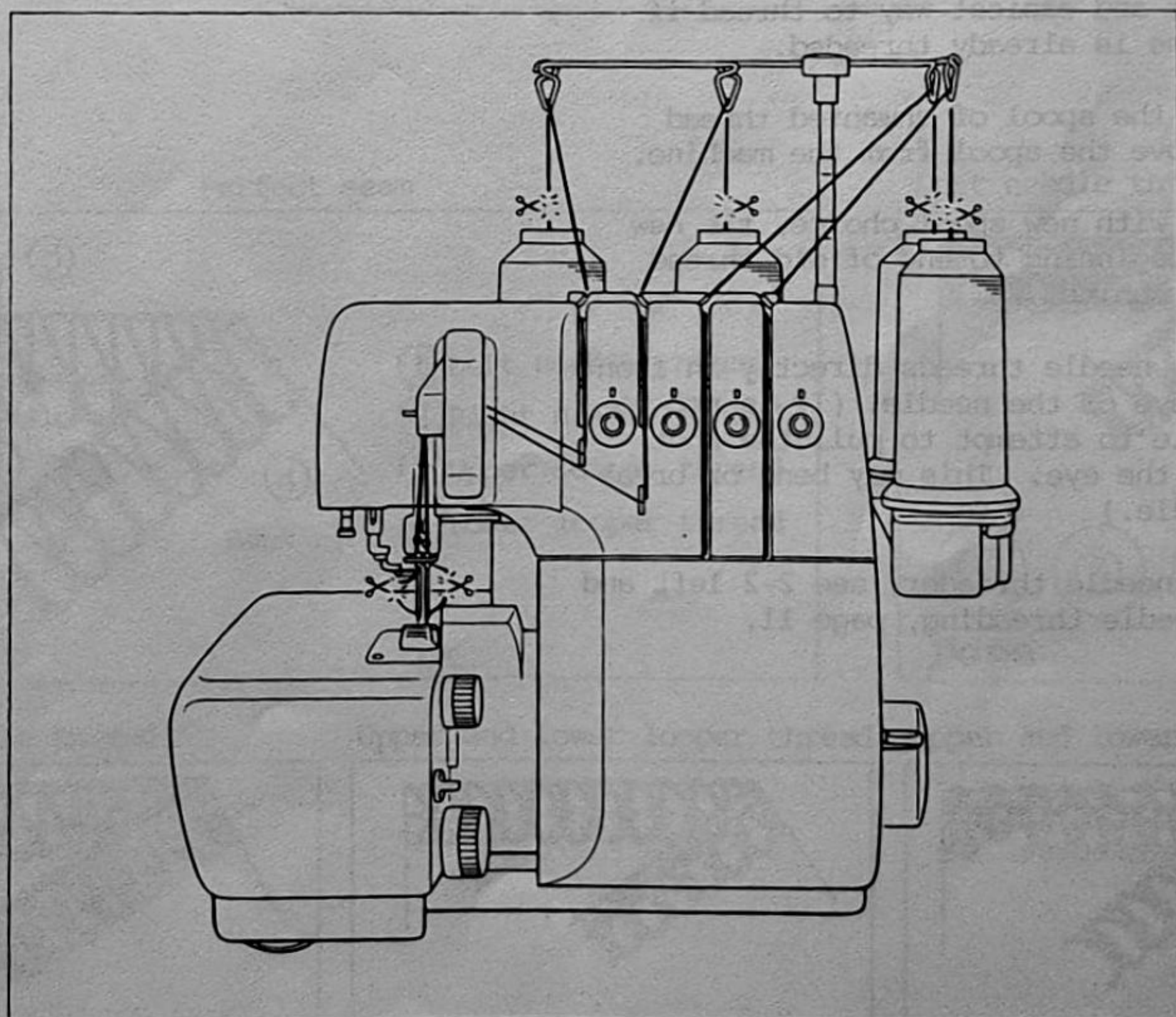
5. After threading all threads, move the lock button release lever to the right until it stops. The lock button will be released automatically.

NOTE: If the lock button is not released, machine will not run even if you operate the foot controller.

6. Close the front cover.



3 THREADING - TYING ON



6. With the needle and upper looper thread under the presser foot and to the back, lower the presser foot.

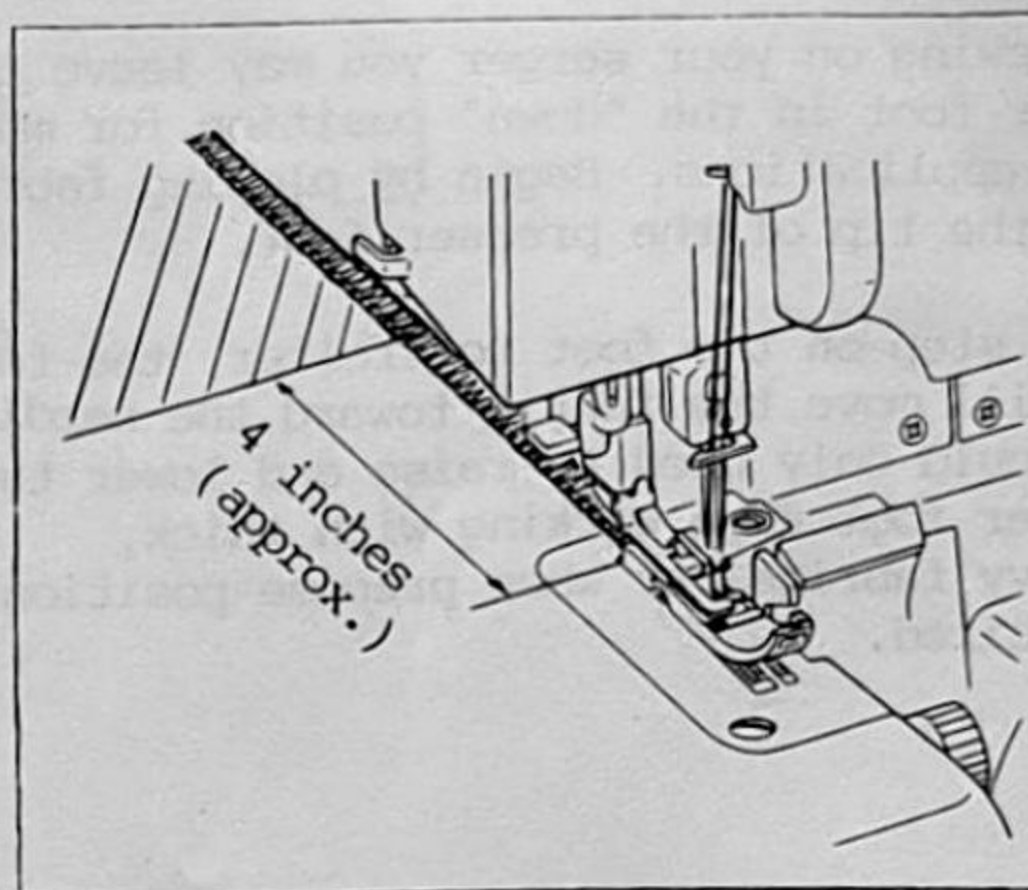
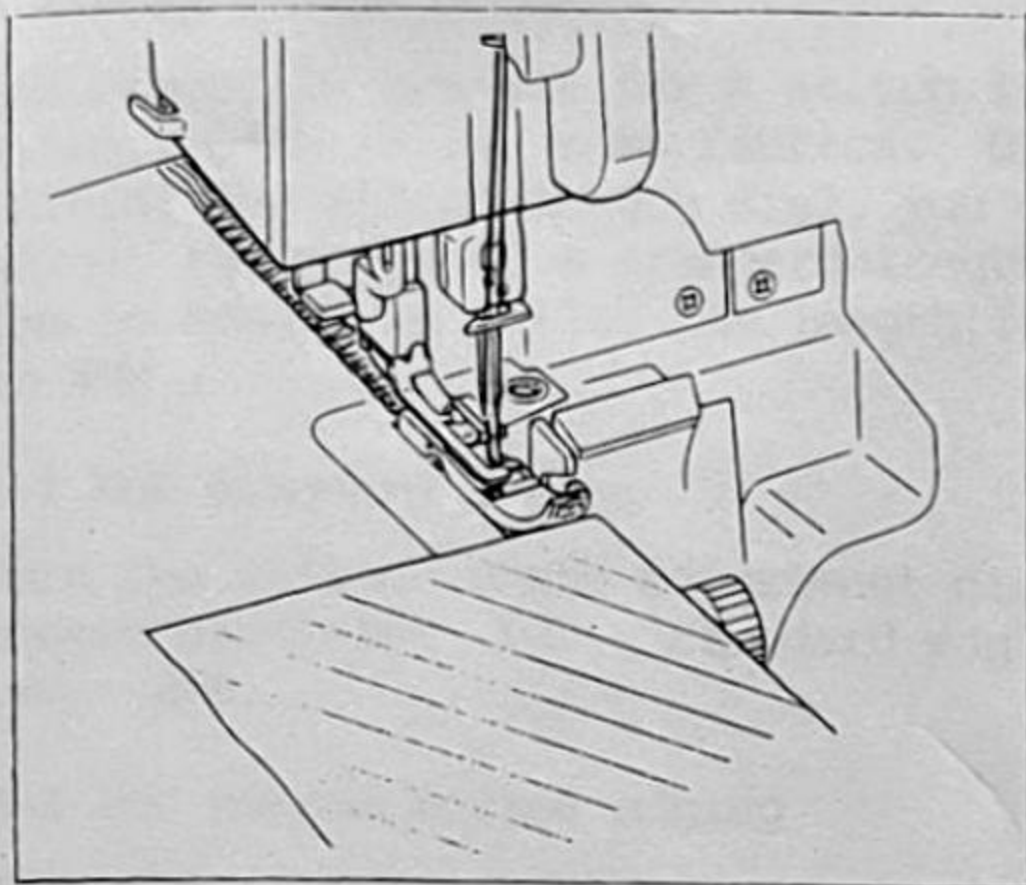
Gently pull the threads toward the back and slowly press foot controller to form a chain.

3 THREADING - TYING ON

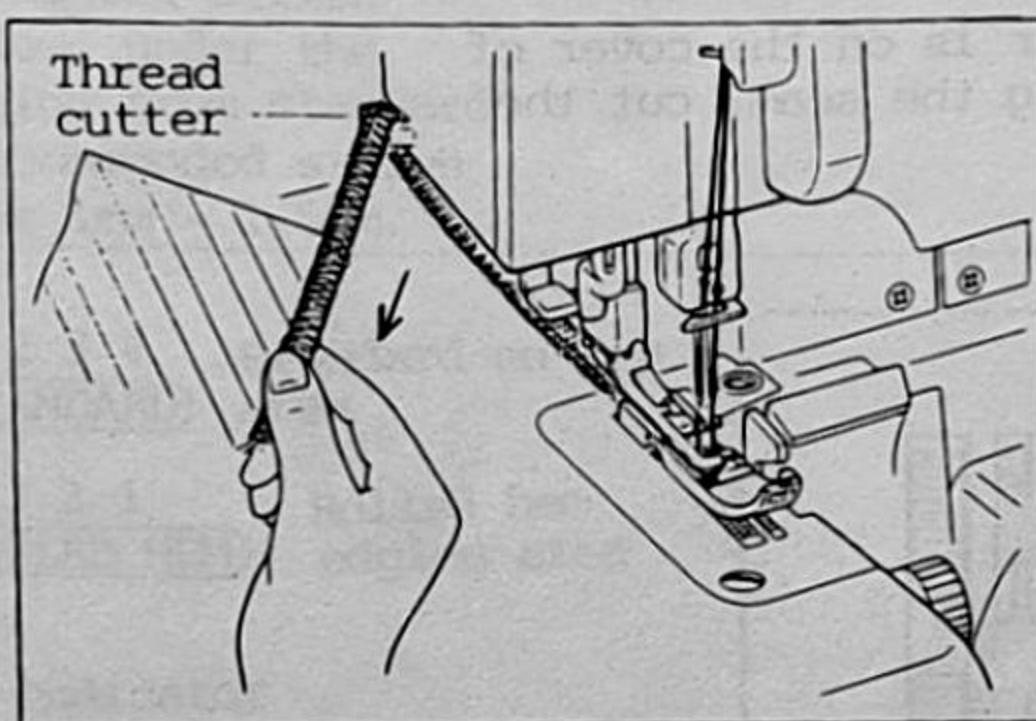
The fastest and easiest way to thread if your machine is already threaded.

1. Cut off the spool of unwanted thread and remove the spool from the machine.
2. Replace with new spool choice, tie new thread beginning to end of old thread in the machine.
3. Clip the needle threads directly in front of the eye of the needle. (It is not advisable to attempt to pull the knot through the eye. This may bend or break the needle.)

Use the needle threader, see 2-2 left and right needle threading, page 11.

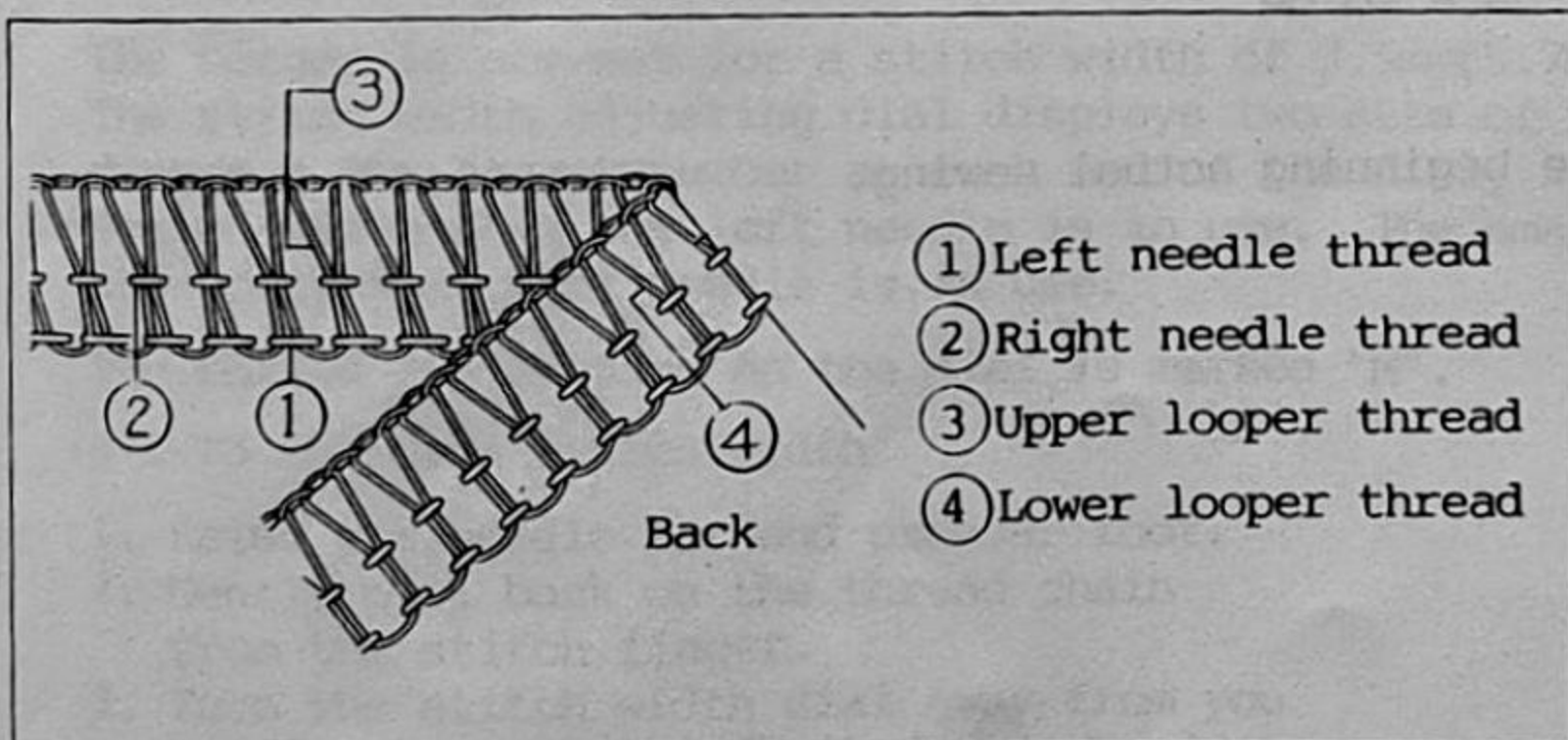


4-1

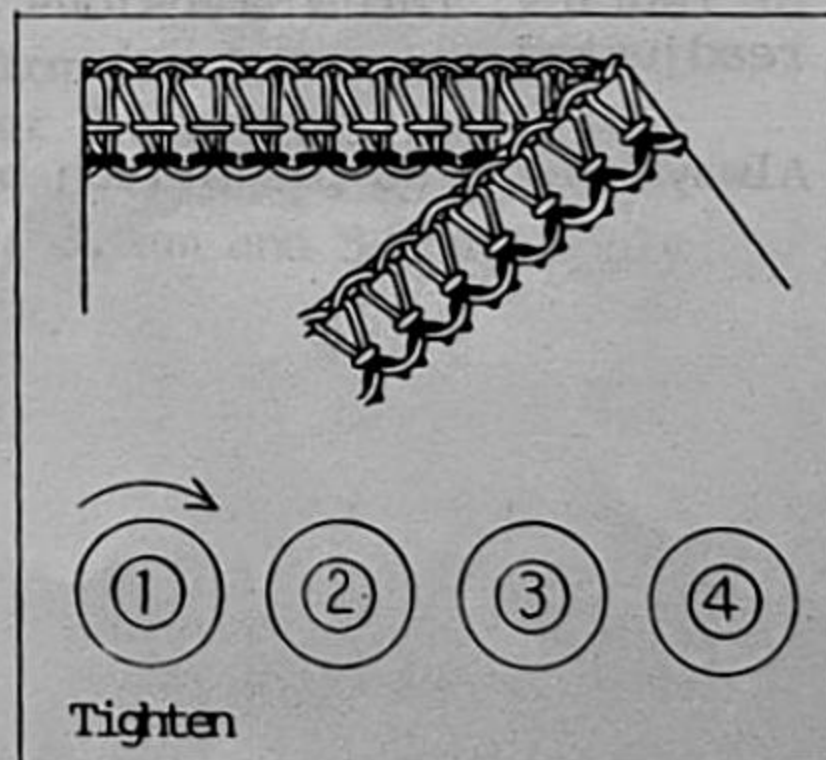


4-2

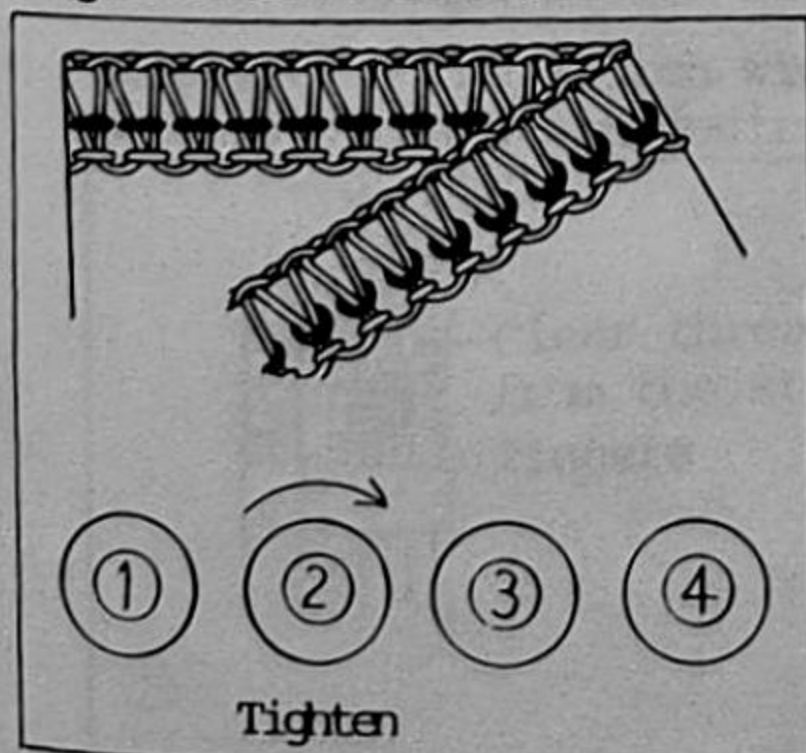
Perfect seam



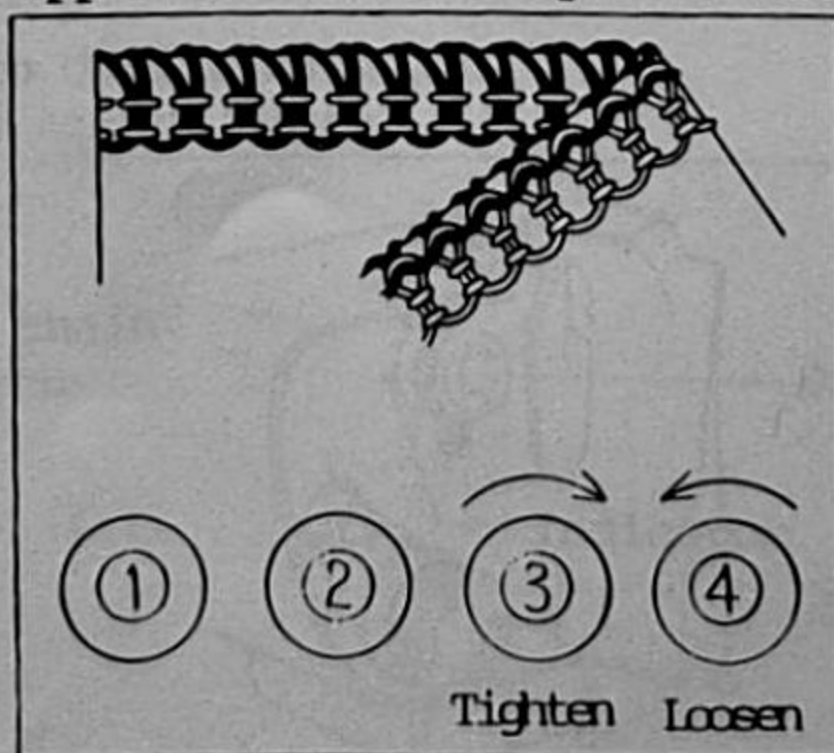
Left needle thread



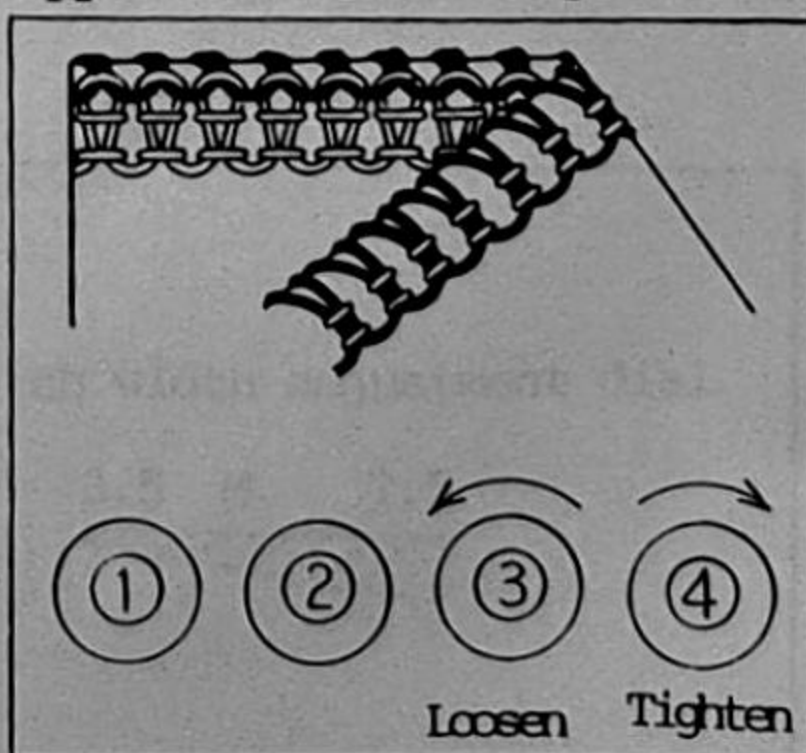
Right needle thread



Upper and lower looper thread



Upper and lower looper thread



4 START FOUR-THREAD SERGING

When sewing on your serger you may leave the presser foot in the "down" position for most sewing applications. Begin by placing fabric under the tip of the presser foot.

As you step on the foot controller, the feed dogs will move the fabric toward the needle. You should only need to raise and lower the presser foot when working with thick, or heavy fabrics, or when precise positioning is required.

4-1 Thread cutter

Your serger's thread cutter is on the cover of left side. After finishing the seam, cut the thread with thread cutter.

4-2 Thread tension

All thread tensions of your serger are pre-set at the factory with our standard thread and fabrics. However, depending on the kind of thread or fabrics, thread tensions will have to be readjusted.

Always sew a sample stitch before beginning actual sewing.

5 STITCH LENGTH ADJUSTMENT

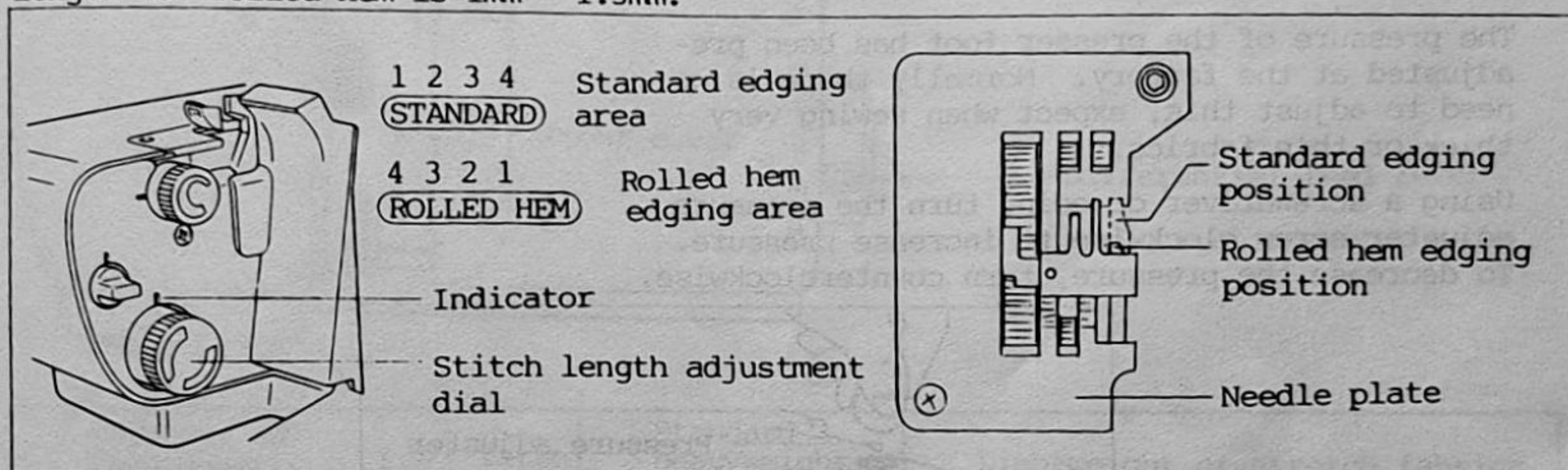
The serger is pre-set for a stitch length of 2.5mm, which is for most fabrics. By simply turning the stitch length dial, you can adjust the range of a standard length (from 1mm to 4mm) or a rolled hem length (from 1mm to 4mm).

5-1 For standard edging

Turn the stitch length adjustment dial counterclockwise for standard edging 1mm - 4mm.

5-2 For narrow rolled edging

Turn the stitch length adjustment dial clockwise for narrow rolled edging 1mm - 4mm. You will find the stitch width tongue slides down under the needle plate when changing from standard to rolled hem area. Recommended stitch length for rolled hem is 1mm - 1.5mm.



6 STITCH WIDTH ADJUSTMENT

The serger is pre-set for a stitch width of 3.5mm (5.7mm from the left needle). The stitch width adjusting dial displays two sets of number indicating two width ranges. The larger number at each end of the dial, 5.5mm and 7.5mm, denote the stitch width when the left needle is in use. The smaller, 3.0mm and 5.0mm, apply when only the right needle is in use.

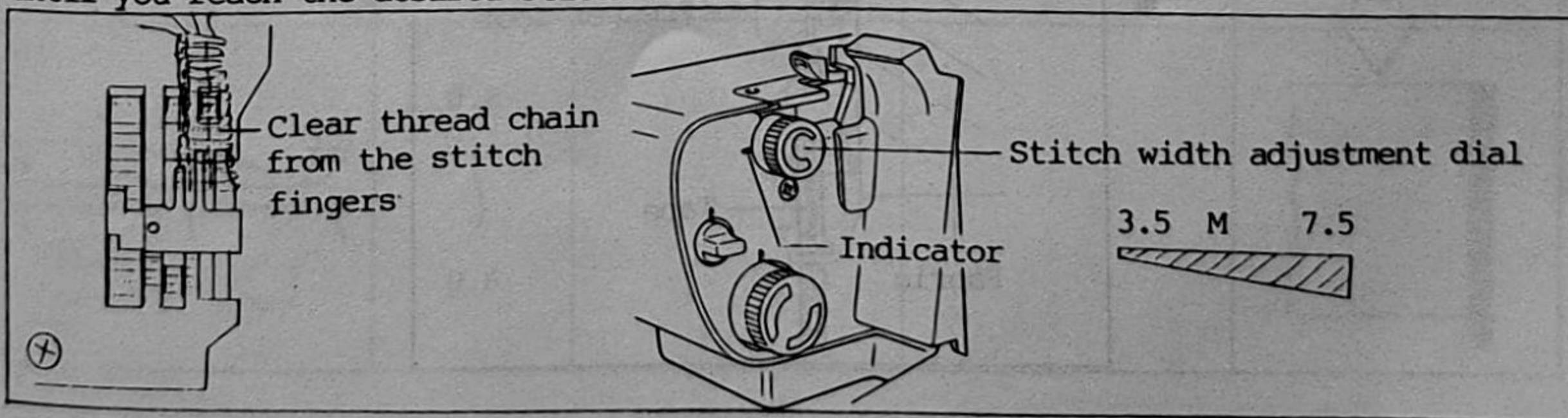
The rolled hem setting on the dial is marked "M".

6-1 To increase stitch width

1. Raise the needle bar and presser foot.
2. Gently pull back on the thread chain from the stitch finger.
3. Turn the stitch width dial away from you until you reach the desired stitch width.

6-2 To decrease stitch width

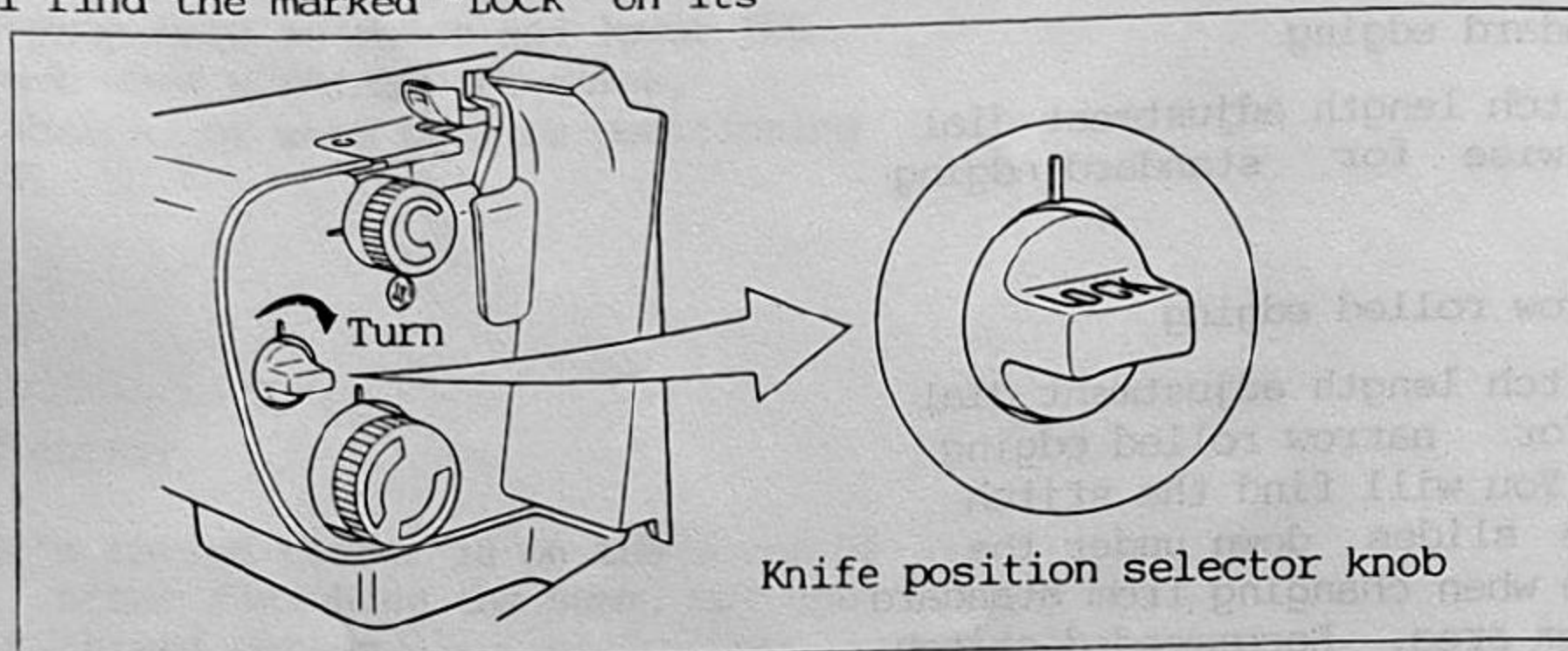
Simply turn the stitch width dial toward you until you reach the desired stitch width.



7. DISENGAGING THE KNIFE

When no trimming is desired, for example, flatlock seam, pintuck seam, decorative seam etc., turn the knife position selector knob clockwise to the "LOCK" position.

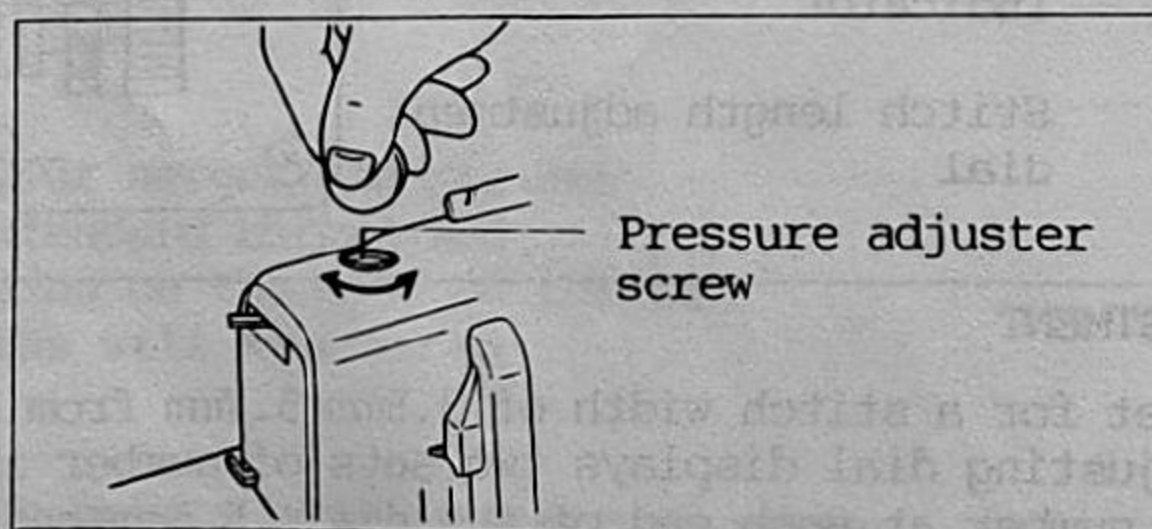
You will find the marked "LOCK" on its knob.



8. PRESSER FOOT ADJUSTMENT

The pressure of the presser foot has been pre-adjusted at the factory. Normally there is no need to adjust this, except when sewing very thick or thin fabrics.

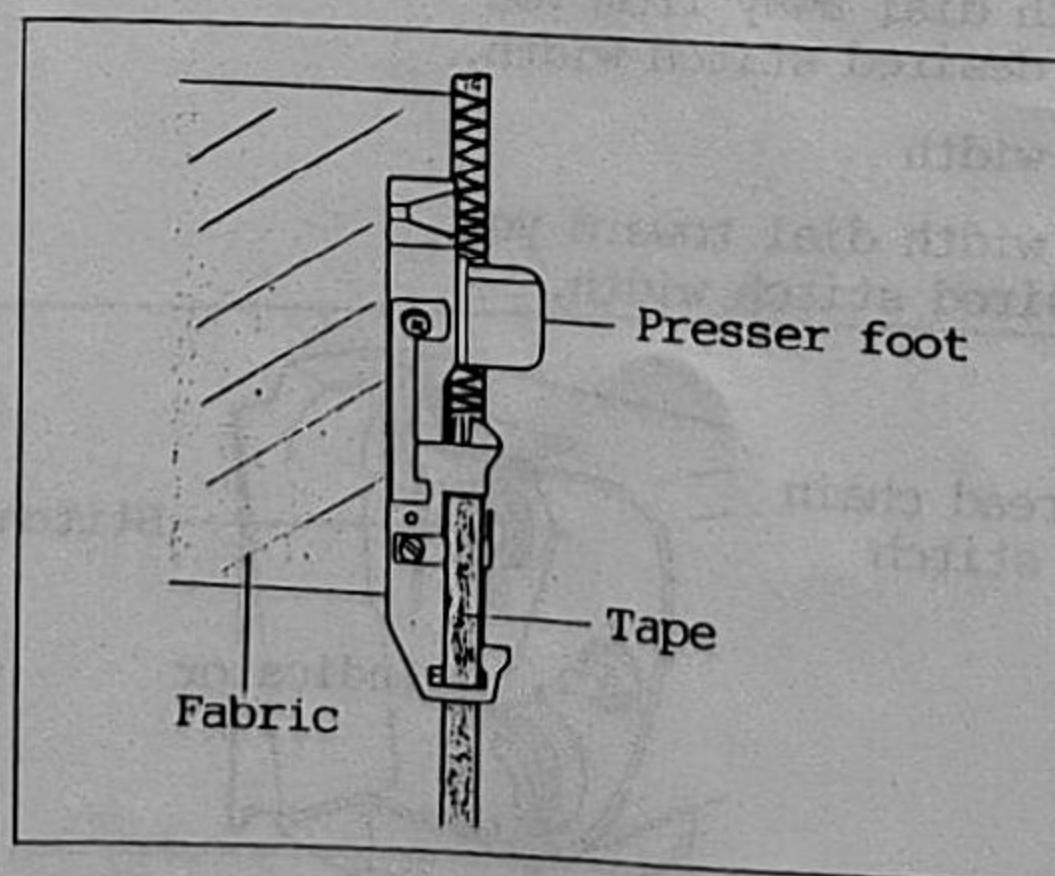
Using a screwdriver or coin, turn the pressure adjuster screw clockwise to increase pressure. To decrease the pressure, turn counterclockwise.

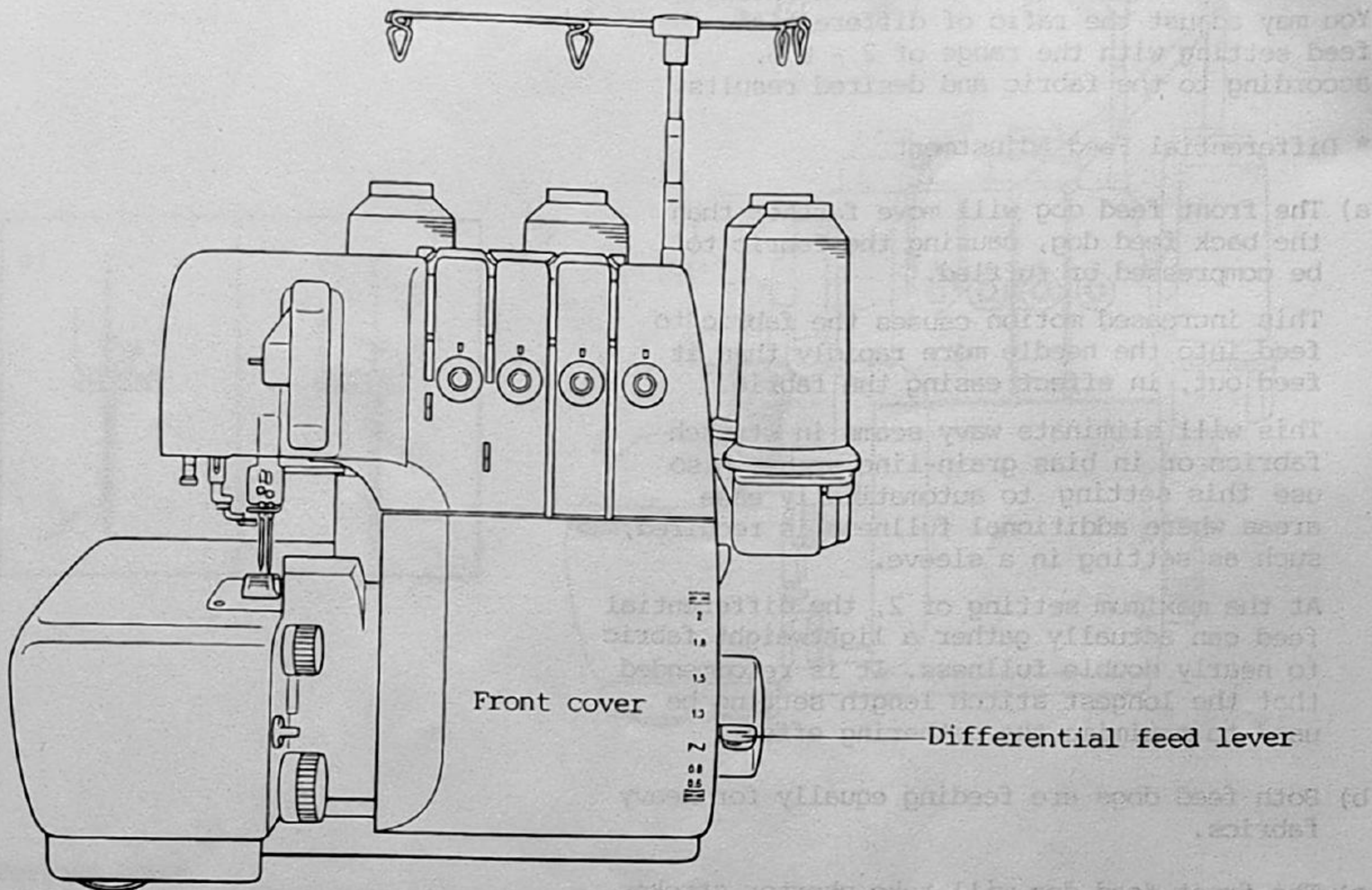


8-1 Tape guide slot in presser foot

The tape guide slot in the presser foot is designed to guide a stabilizing tape or narrow elastic into the stitching.

Insert the tape or elastic through the slot and under the back of the foot. Adjust the stitch width to match the width of the tape.





Movement of feed dogs	D/F ratio	Standard heavyweight fabrics	Lightweight or stretch fabrics
a) Presser foot 	2 1.3		
b) 	N(0)		
c) 	0.8 0.6		

9. DIFFERENTIAL FEED ADJUSTMENT

The differential feed system is applicable when sewing either woven or stretch fabrics. You may adjust the ratio of differential feed setting with the range of 2 - 0.6, according to the fabric and desired results.

* Differential Feed Adjustment

- a) The front feed dog will move farther than the back feed dog, causing the fabric to be compressed or ruffled.

This increased motion causes the fabric to feed into the needle more rapidly than it feed out, in effect easing the fabric.

This will eliminate wavy seams in stretch fabrics or in bias grain-line areas. Also use this setting to automatically ease areas where additional fullness is required, such as setting in a sleeve.

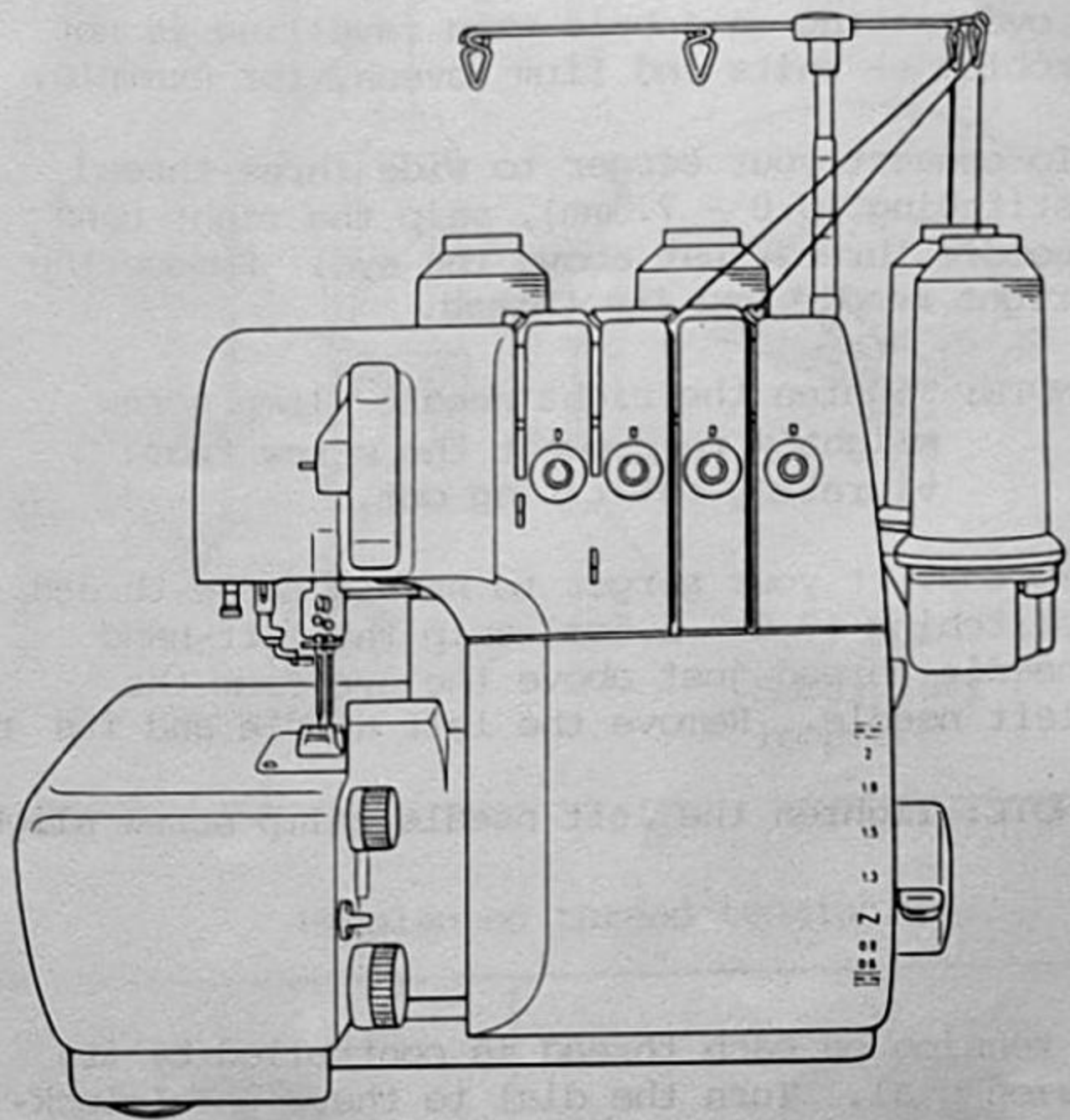
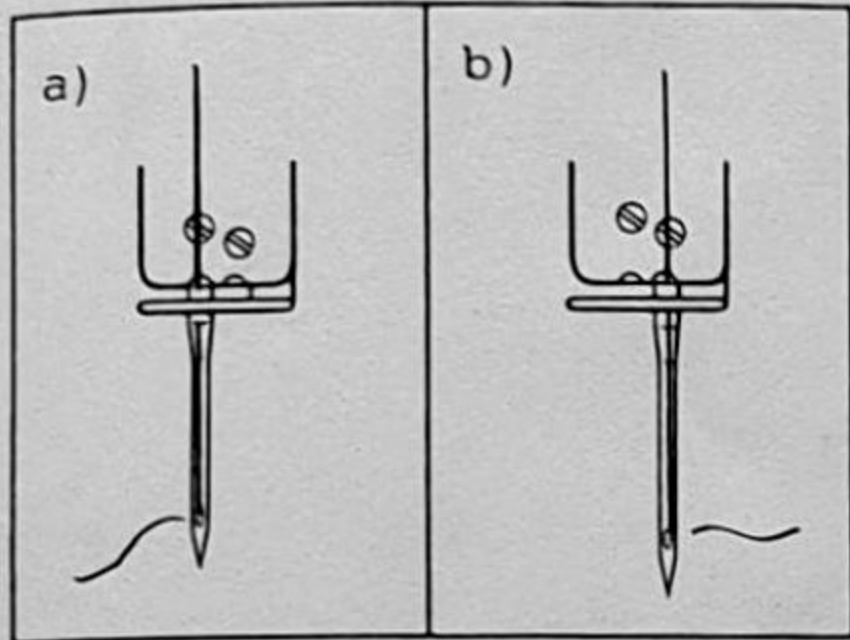
At the maximum setting of 2, the differential feed can actually gather a lightweight fabric to nearly double fullness. It is recommended that the longest stitch length setting be used to maximize the gathering effect.

- b) Both feed dogs are feeding equally for heavy fabrics.

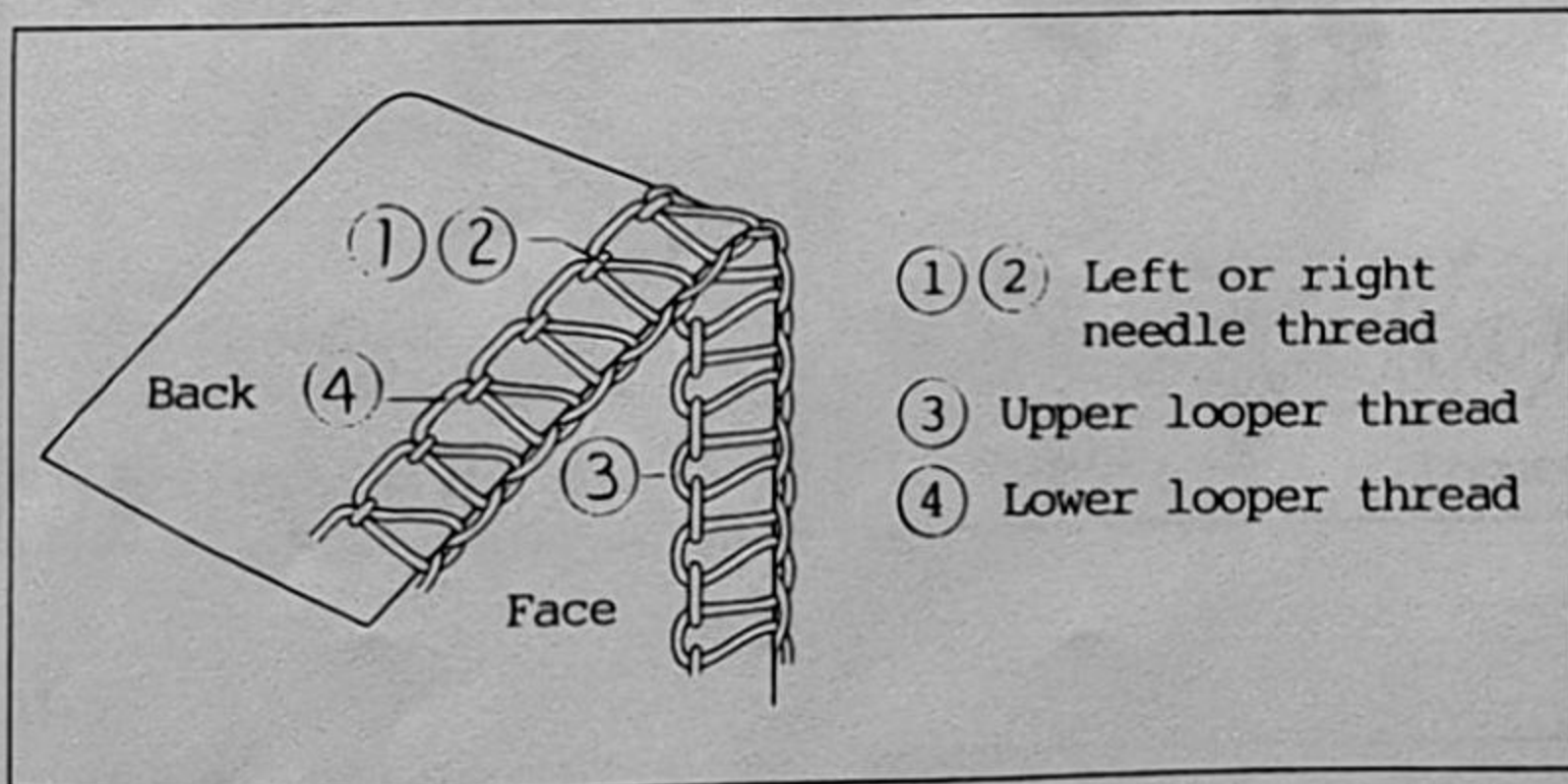
- c) The front feed dog will take shorter strokes than the back feed dog, causing the fabric to be slightly stretched as it is sewn.

This adjustment causes the fabric to pull taut as it enters the needle, preventing puckers on lightweight fabrics.

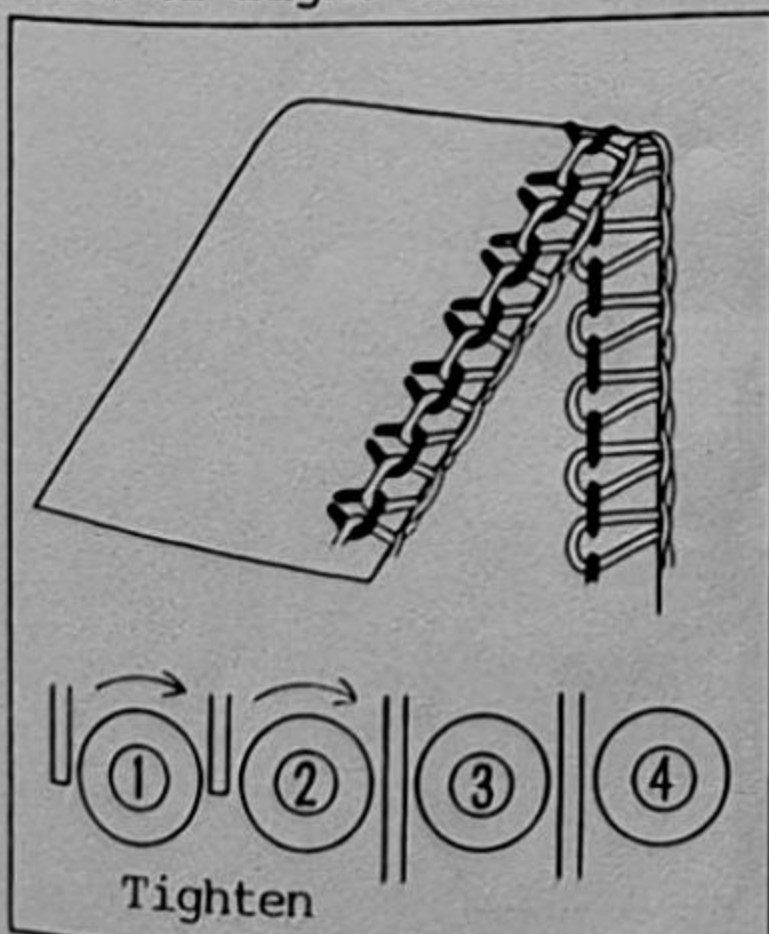
This setting can also be used to create a fluted edge or to add additional stretch in active wear and swim wear.



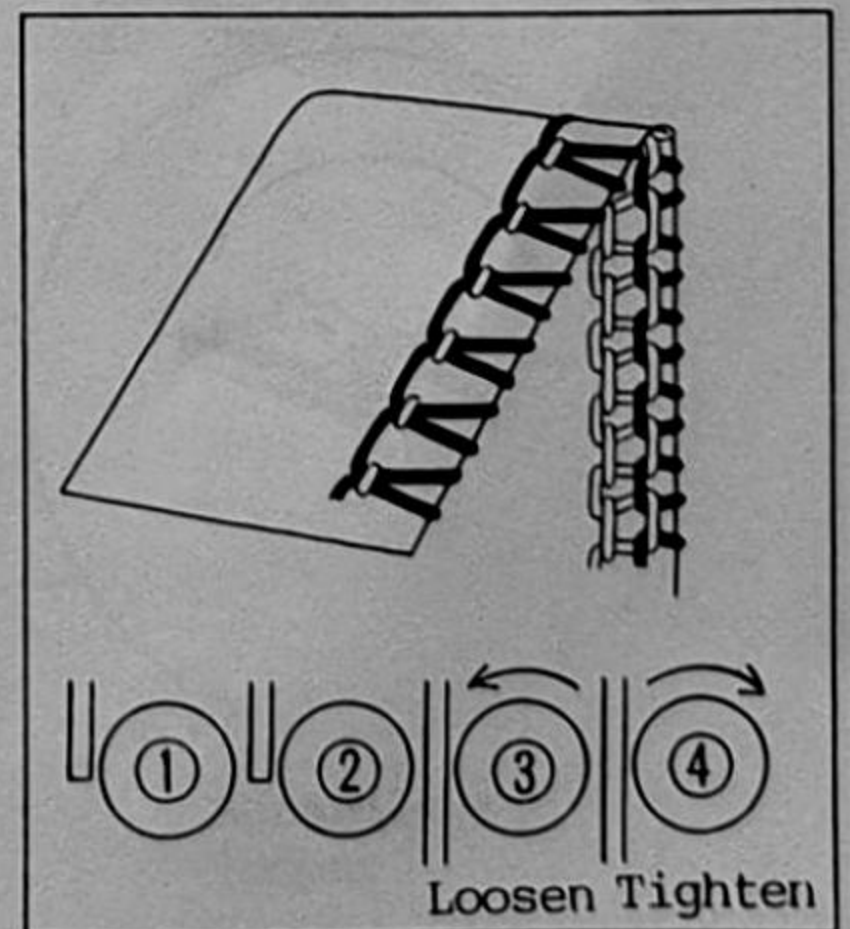
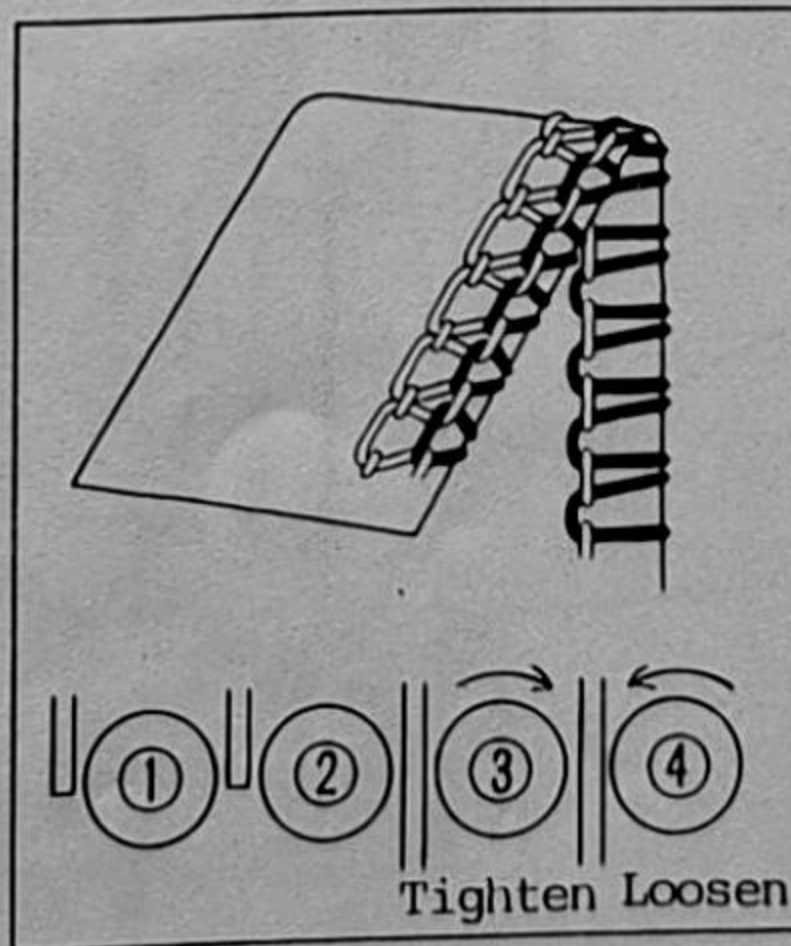
Perfect Seam



Left or right needle thread



Upper and lower looper thread



10 THREE-THREADING SERGING

Three-thread serger stitching is ideal for seaming and overcasting on fabric when ravelling is not a problem -- knits and firm wovens, for example.

- a) To convert your serger to wide three-thread stitching (5.0 - 7.5mm), snip the right-hand needle thread just above the eye. Remove the right needle and its thread.

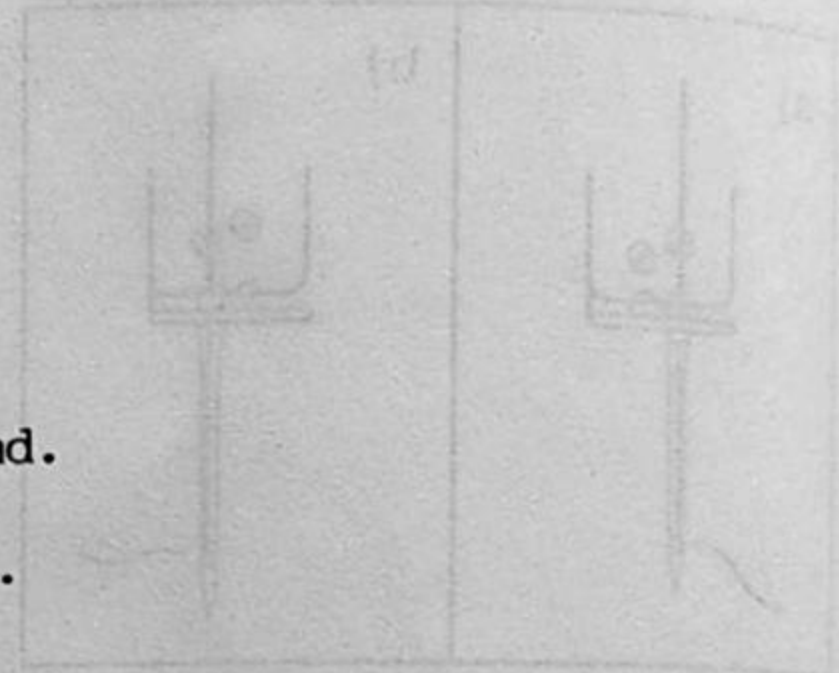
NOTE: Tighten the right needle clamp screw slightly to prevent the screw from vibrating out.

- b) To convert your serger to narrow three-thread stitching (3.0 - 5.5mm) snip the left-hand needle thread just above the eye from the left needle. Remove the left needle and its thread.

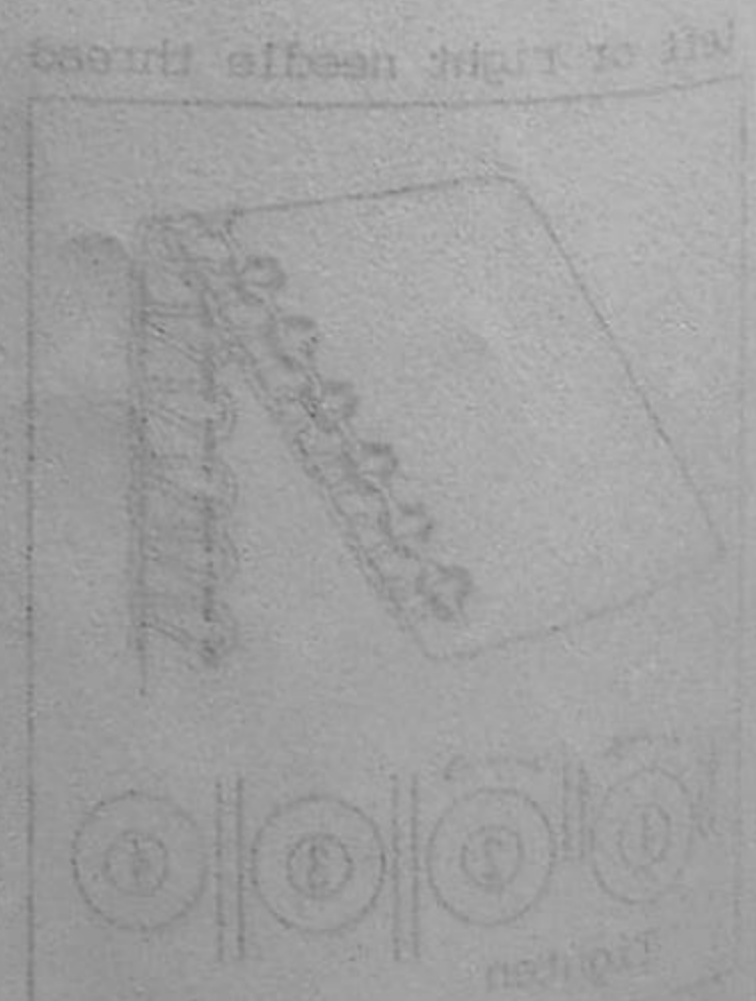
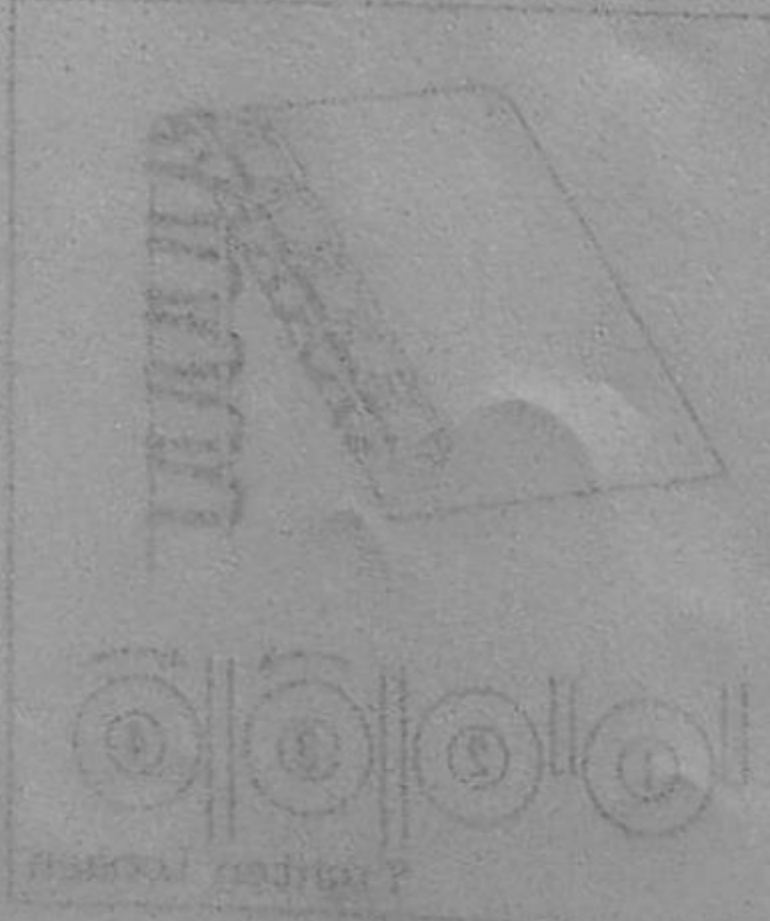
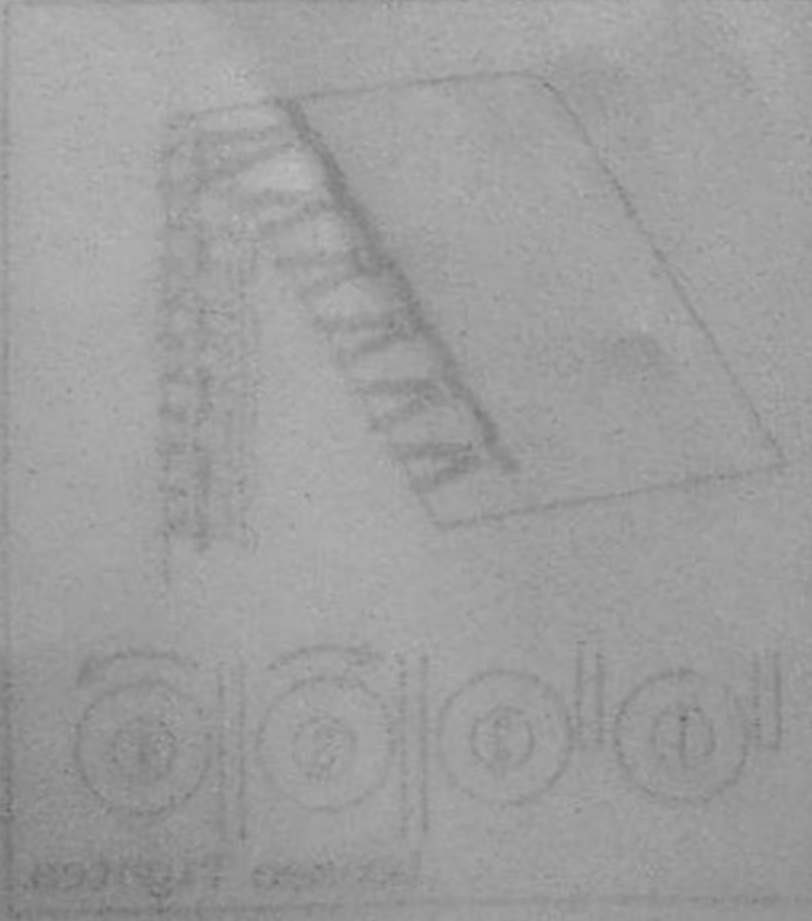
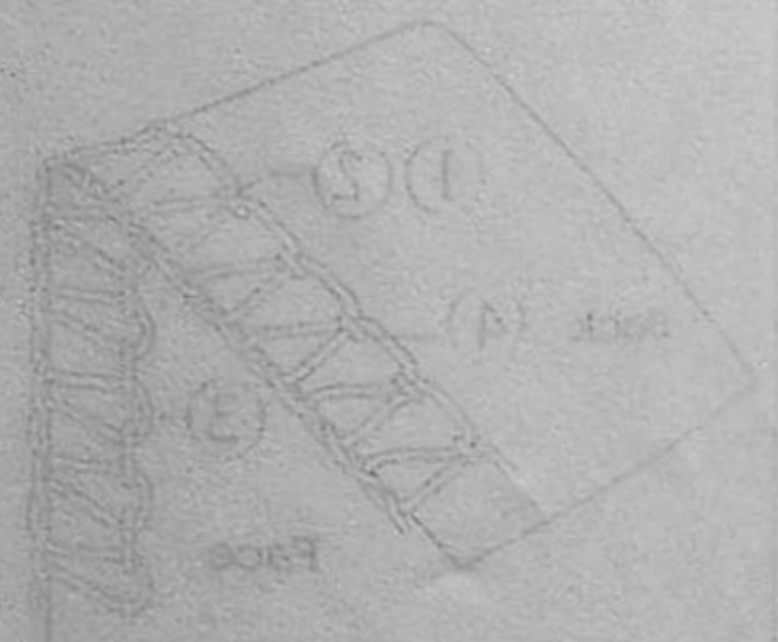
NOTE: Tighten the left needle clamp screw slightly.

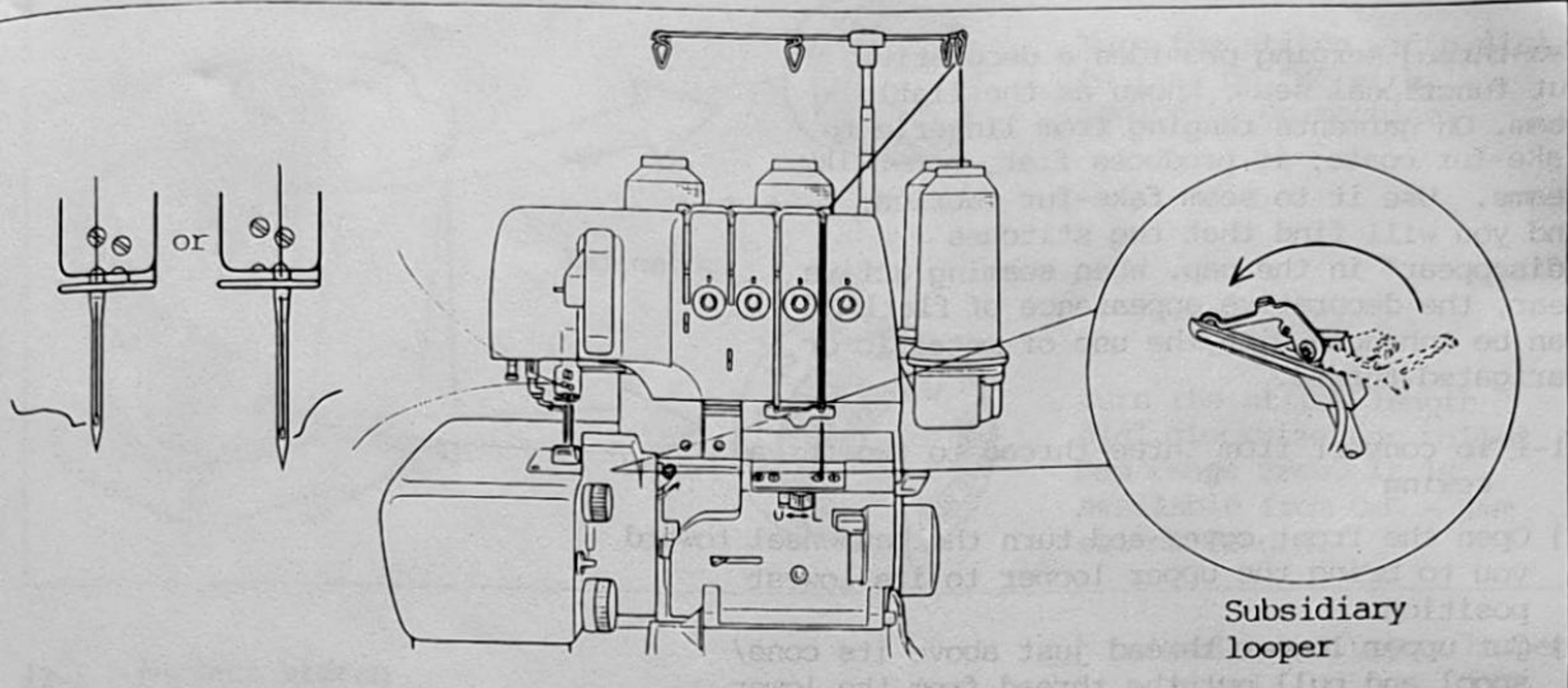
The tension on each thread is controlled by its tension dial. Turn the dial to the right (clockwise) to increase tension, or turn the dial to the left (counterclockwise) to decrease tension.

Adjust each tension according to the illustration on the previous page.



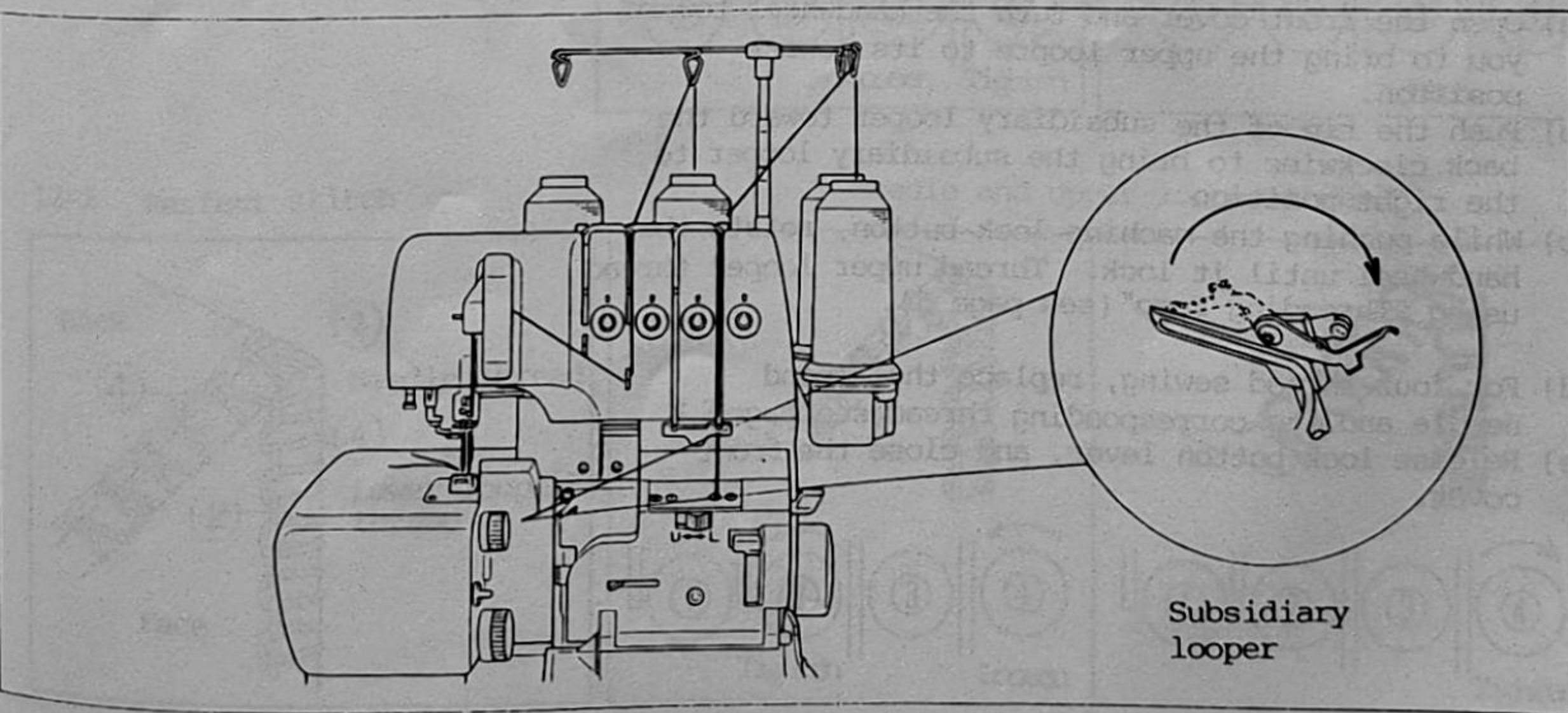
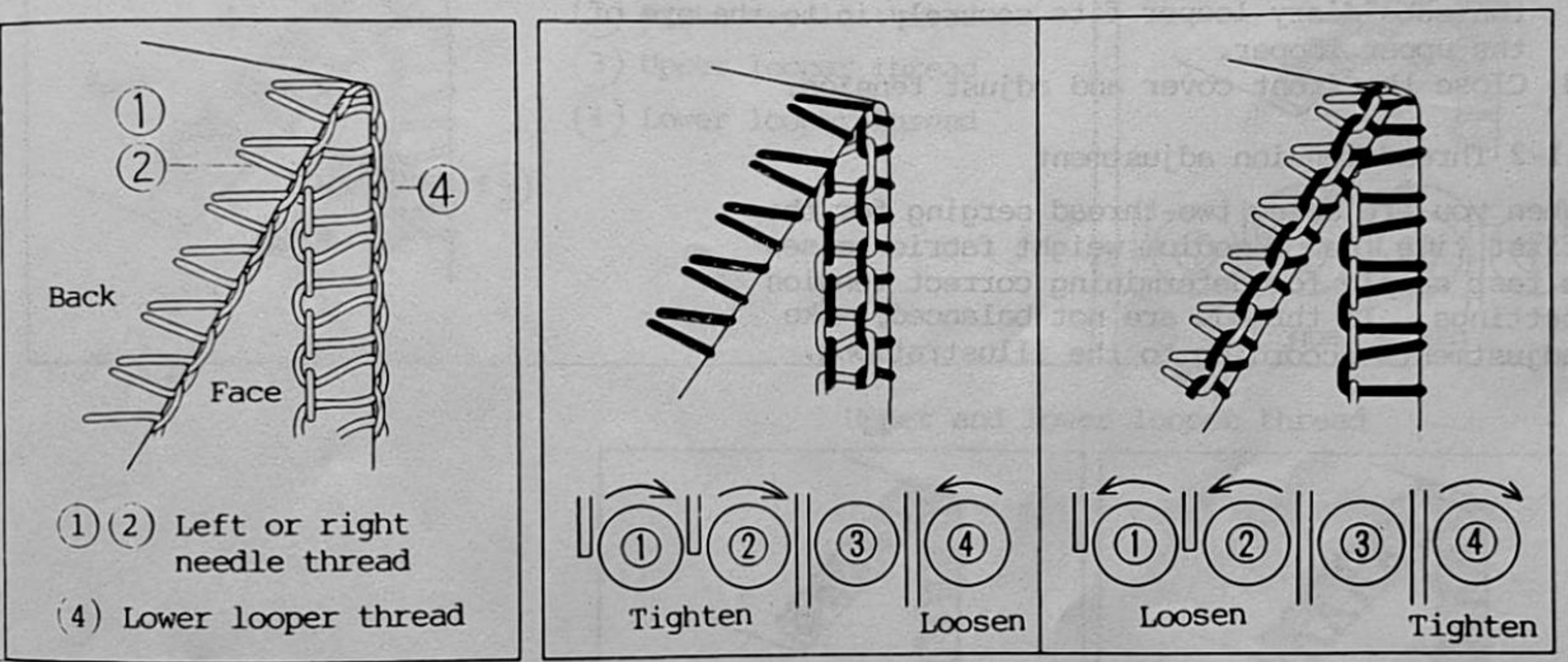
(1) Left of right needle thread
(2) Upper loop of thread
(3) Lower loop of thread





Perfect seam

Unbalanced thread tension



11. TWO-THREAD SERGING

Two-thread serging provides a decorative, but functional seam, known as the flatlock seam. On garments ranging from lingerie to fake-fur coats, it produces flat, non-bulky seams. Use it to seam fake-fur fabrics, and you will find that the stitches "disappear" in the nap. When seaming active wear, the decorative appearance of flatlock can be enhanced with the use of metallic or varigated thread.

11-1 To convert from three-thread to two-thread sewing

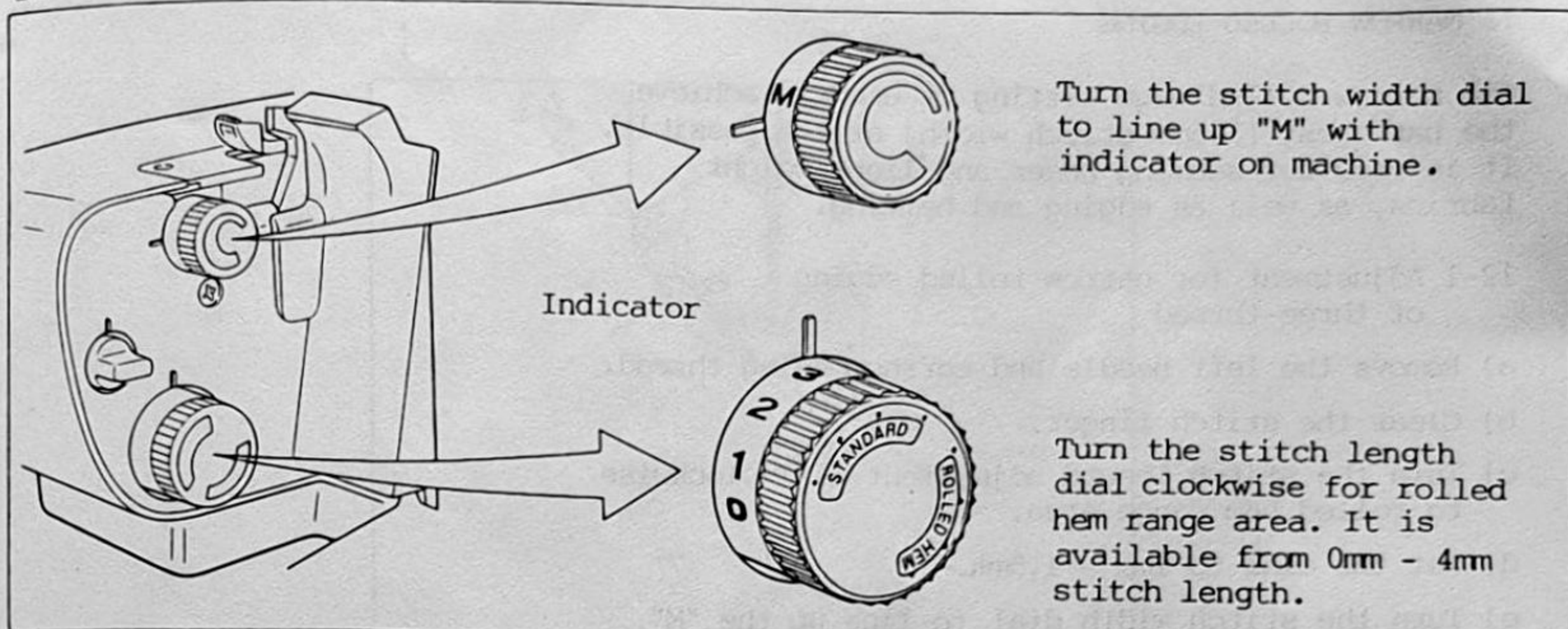
- a) Open the front cover and turn the handwheel toward you to bring the upper looper to its lowest position.
- b) Cut upper looper thread just above its cone/spool and pull out the thread from the lower looper.
- c) Push on the subsidiary looper with your finger, and rotate it to the left until the tip of the subsidiary looper fits securely in to the eye of the upper looper.
- d) Close the front cover and adjust tension.

11-2 Thread tension adjustment

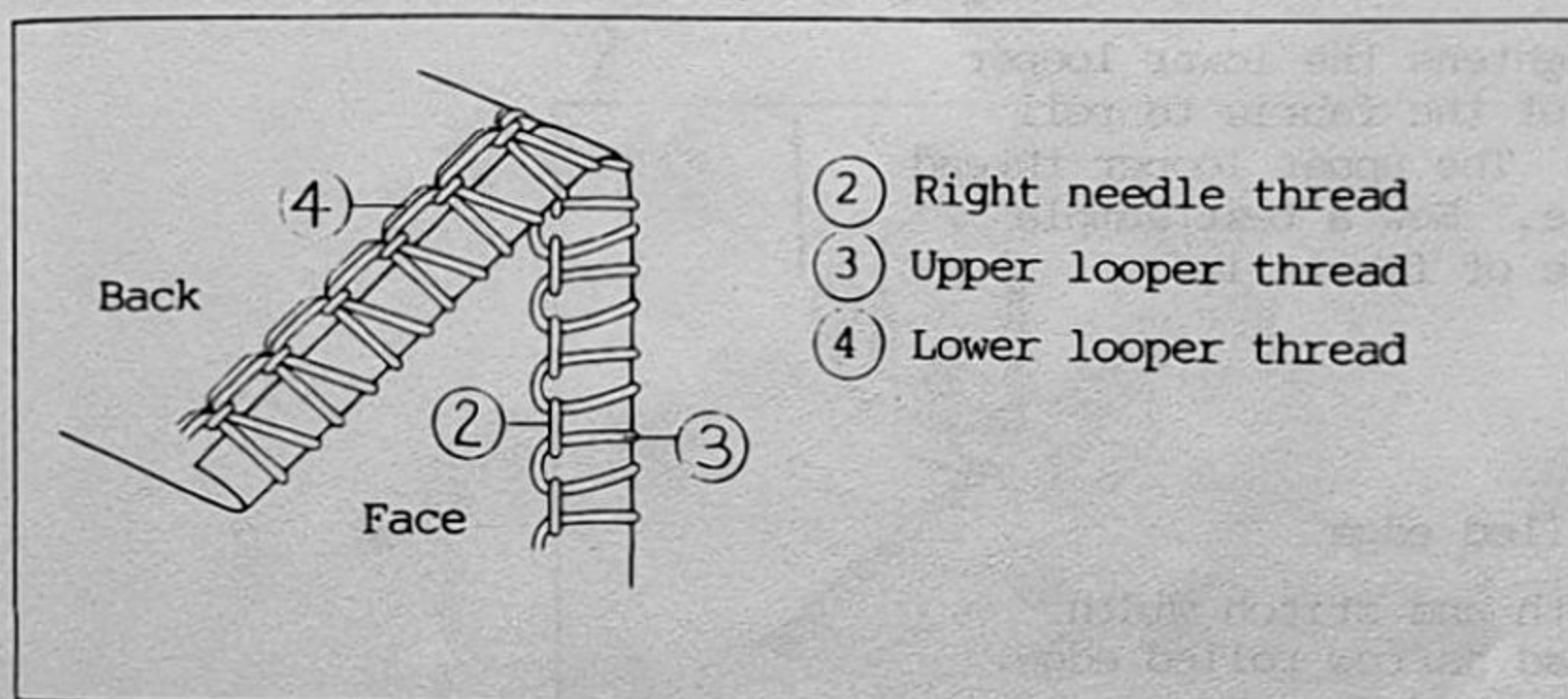
When you are doing two-thread serging for the first time, use a medium weight fabric to sew a test sample for determining correct tension settings. If threads are not balanced, make adjustments according to the illustrations.

11-3 To return from two-thread to three-thread or four-thread sewing

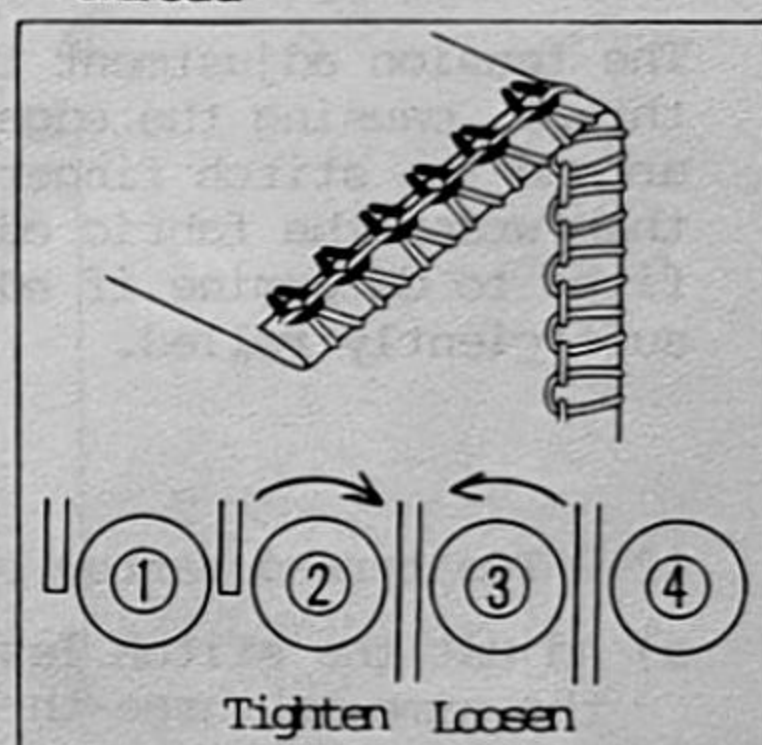
- a) Open the front cover and turn the handwheel toward you to bring the upper loopre to its lowest posiiton.
- b) Push the tip of the subsidiary looper toward the back clockwise to bring the subsidiary looper to the right position.
- c) While pushing the machine lock button, rotate the handwheel until it lock. Thread upper looper thread using "Threading Pump" (see page 5).
- d) For four-thread sewing, replace the second needle and its corresponding thread(see page 5).
- e) Release lock button lever, and close the front cover.



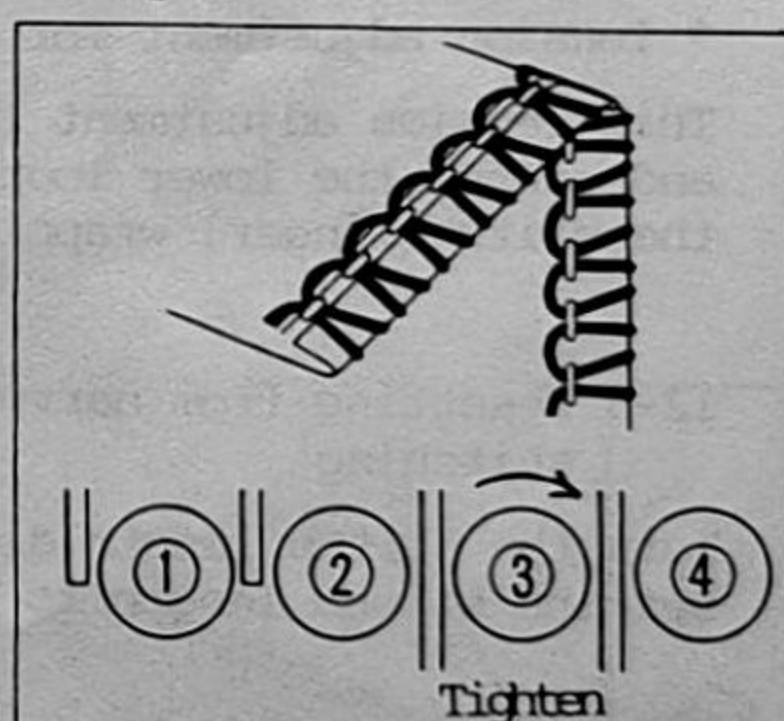
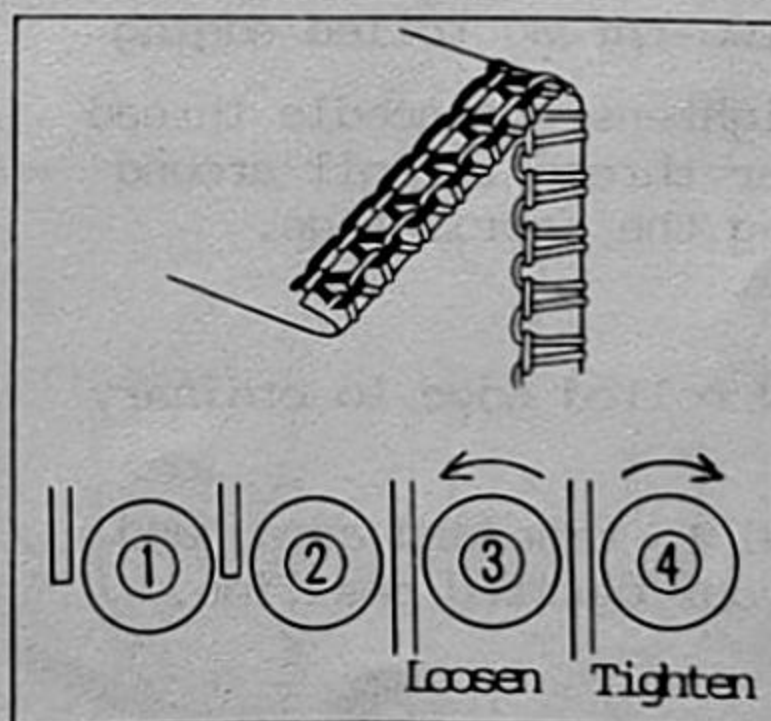
12-1 Perfect stitch



Needle and upper looper thread

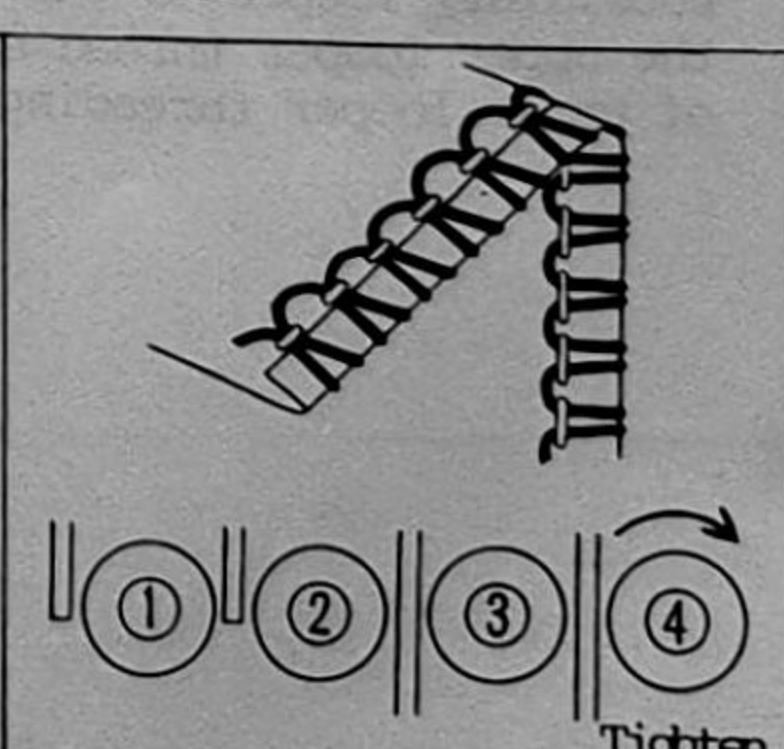
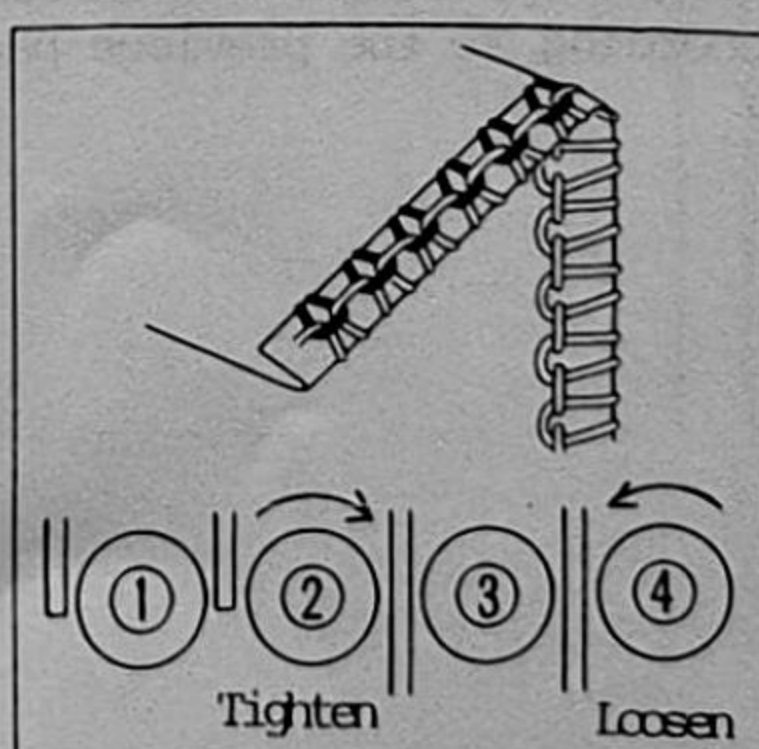
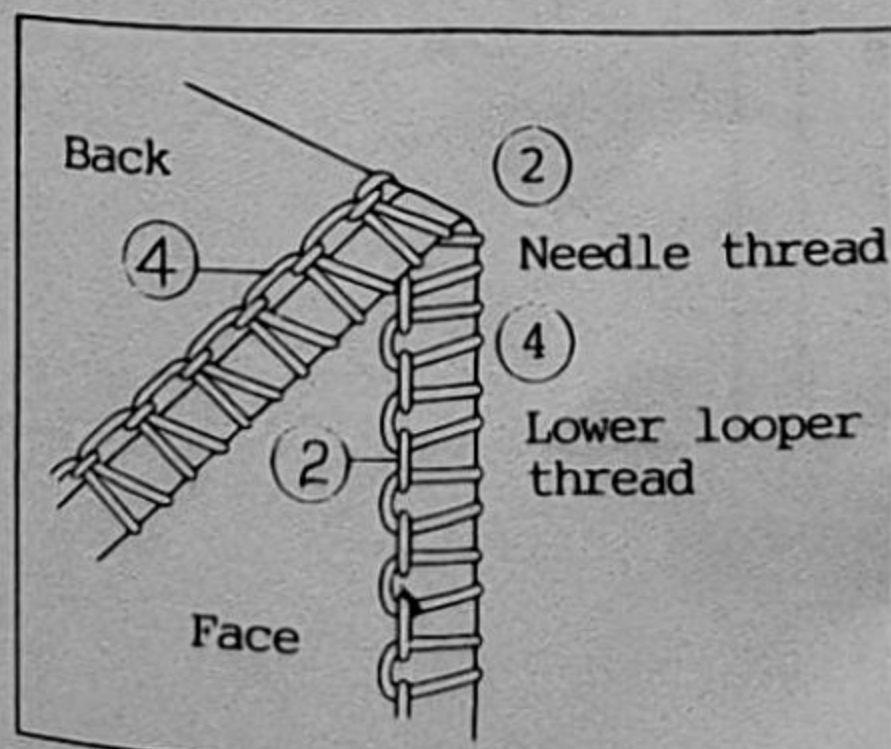


Upper and lower looper thread



12-2 Perfect stitch

Needle and upper looper thread



12 NARROW ROLLED EDGING

The narrow rolled edge setting is used to achieve the narrowest (1.5mm stitch width) stitch possible. It is used for seaming sheer and light weight fabrics, as well as edging and hemming.

12-1 Adjustment for narrow rolled edging of three-thread

- a) Remove the left needle and corresponding thread.
- b) Clear the stitch finger.
- c) Turn the stitch length adjustment dial clockwise to rolled hem range area.
- d) Set the dial to 1mm - 1.5mm.
- e) Turn the stitch width dial to line up the "M" with indicator on the machine.

* Tension adjustment for three-thread rolled edging

The tension adjustment tightens the lower looper thread, causing the edge of the fabric to roll around the stitch finger. The upper looper thread then wraps the fabric edge. Sew a test sample first to determine if edge of fabric is sufficiently rolled.

12-2 Two thread narrow rolled edge

- a) Adjust the stitch length and stitch width the same as three-thread narrow rolled edge.
- b) Set the machine for two-thread sewing.

* Tension adjustment for two-thread rolled edging

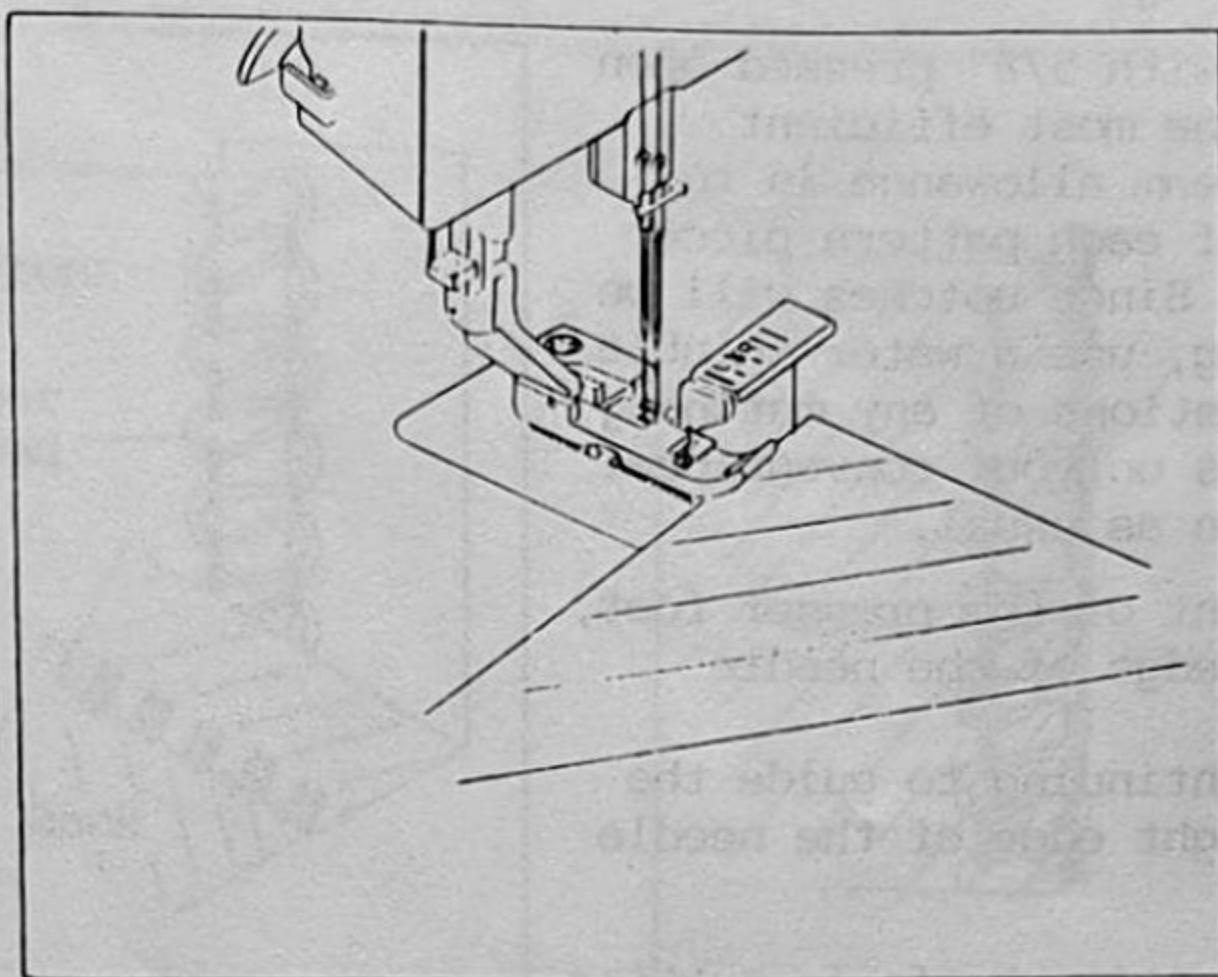
This tension adjustment tightens the needle thread and causes the lower looper thread to roll around the stitch finger, wrapping the fabric edge.

12-3 Resetting from narrow rolled edge to ordinary stitching

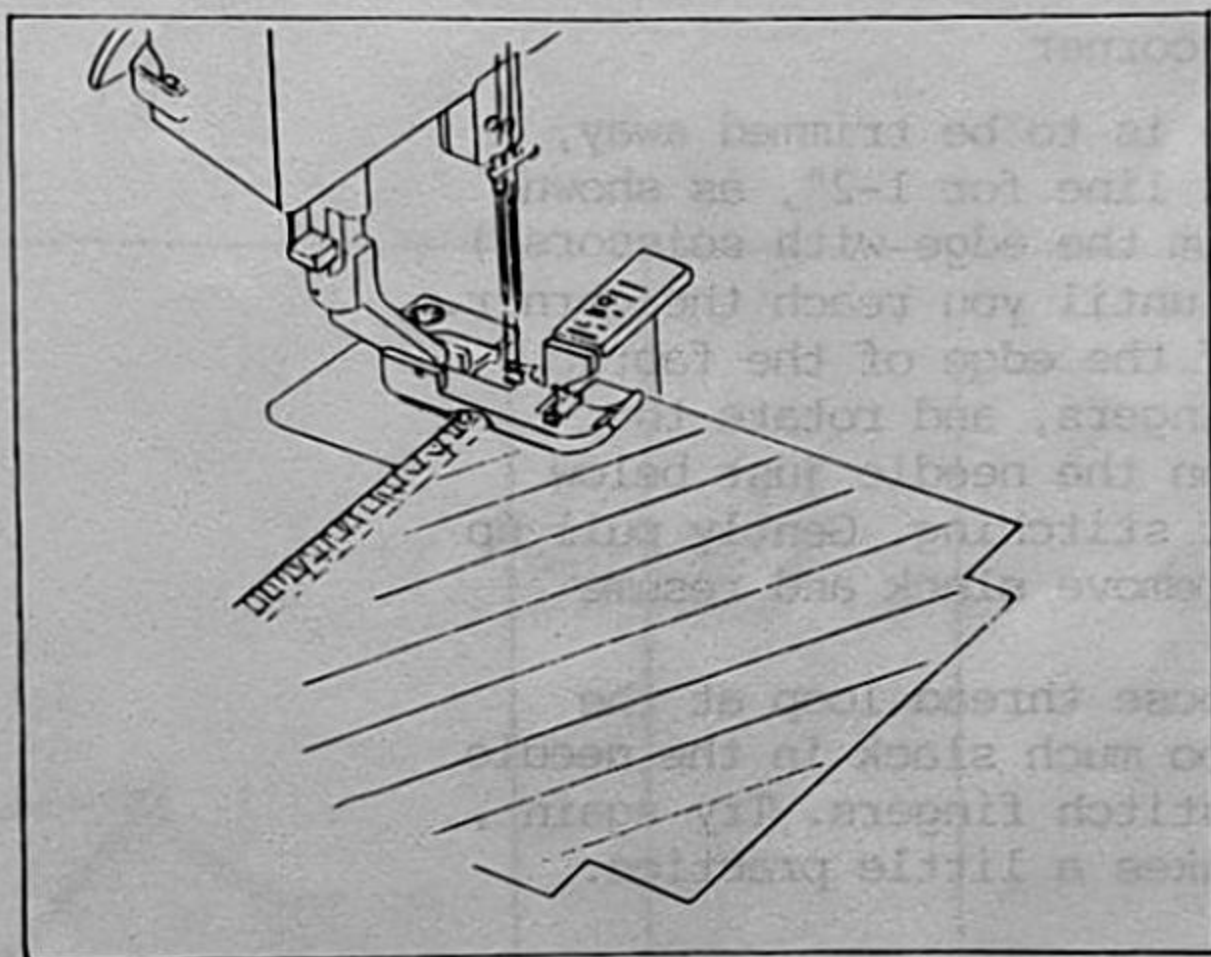
Turn the stitch length dial to standard area, and set the stitch length to your desired position.

In the case of two-thread narrow rolled edging when finished, open the front cover and release the subsidiary looper to the "right" position. Re-thread the upper looper thread according to the previous page of upper looper threading.

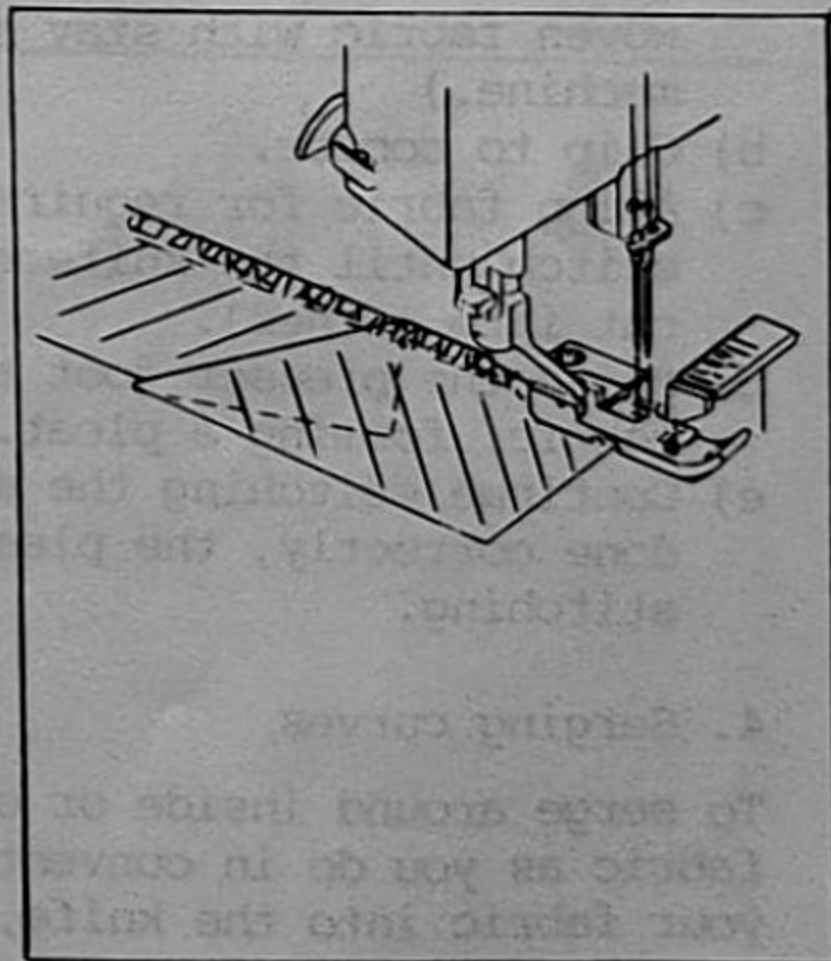
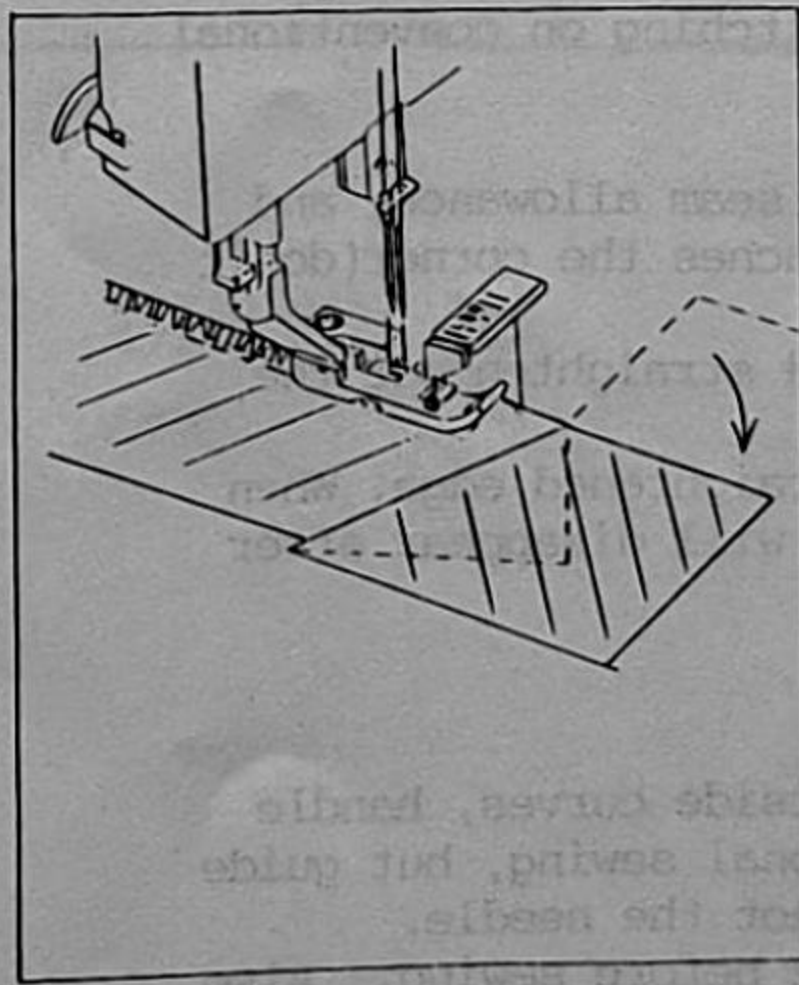
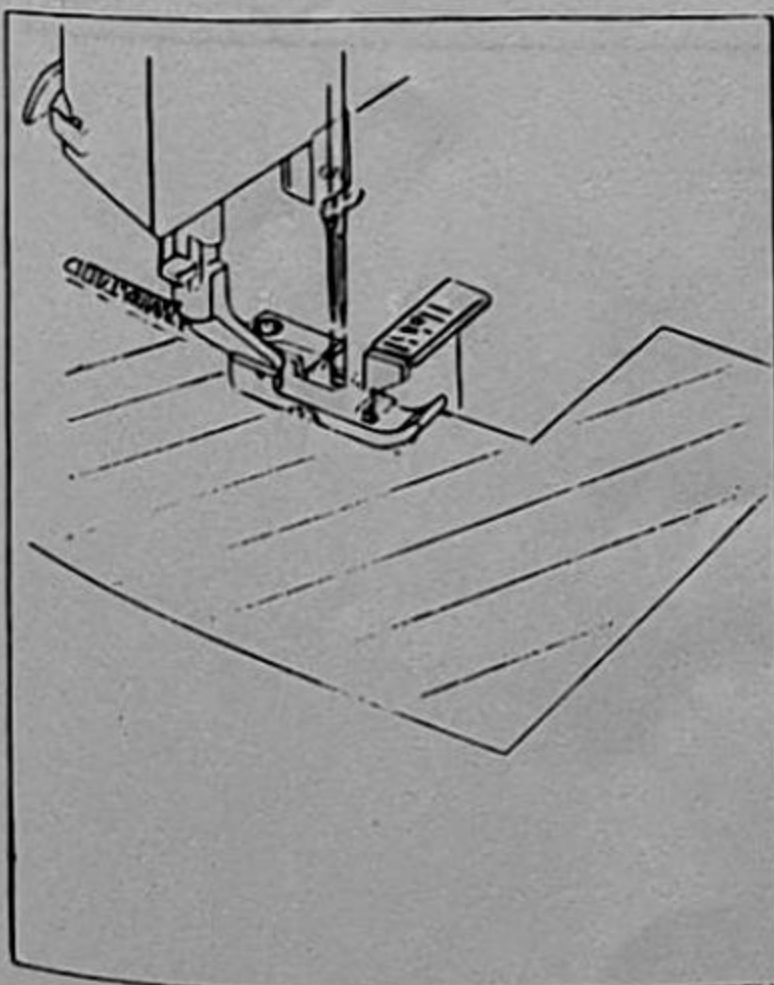
1



2



3



SEAMING

1. Overedging(Overcasting)

When making a garment with 5/8" pressed open seams, you will find the most efficient method for finishing seam allowance is to serge all cut edges of each pattern piece prior to construction. Since notches will be cut away during serging, use a water soluble pen/pencil to mark locations of any matching points. Then, sew seams on your conventional machine, and press open as usual.

- a) Place fabric in front of the presser foot, aligned with right edge of the needle plate.
- b) Begin stitching, continuing to guide the fabric along the right edge of the needle plate.

If you have left the cutting knife in cutting position, the edge of the fabric should be "shaved" clean, but not cut.

2. Turning an outside corner

- a) If a seam allowance is to be trimmed away, clip along each cut line for 1-2", as shown. (Otherwise, pre-trim the edge with scissors.)
- b) Sew along one edge until you reach the corner. Make one stitch off the edge of the fabric.
- c) Clear the stitch fingers, and rotate the fabric to reposition the needle just below the previous row of stitching. Gently pull up on all threads to remove slack and resume stitching.

Note: If you find a loose thread loop at the corner, it is due to too much slack in the needle thread when clearing stitch fingers. Try again ... turning corners takes a little practice.

3. Turning an inside corner

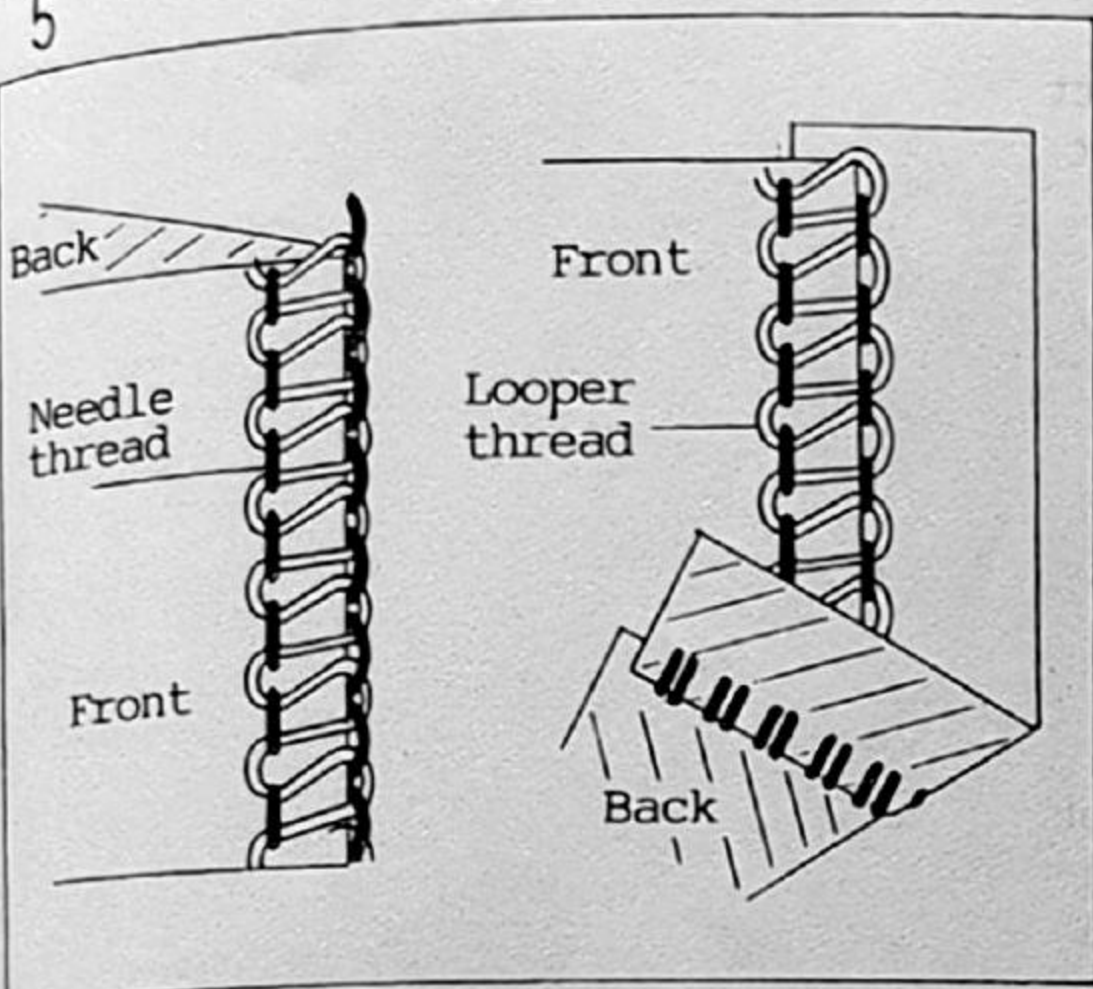
- a) Make the cutting line to within 1" of the corner, both directions. (Reinforce loosely woven fabric with stay stitching on conventional machine.)
- b) Clip to corner.
- c) Align fabric for required seam allowance, and stitch until the knife reaches the corner(don't cut into corner).
- d) Raise the presser foot and straighten out the fabric, forming a pleat.
- e) Continue stitching the straightened edge. When done correctly, the pleat will disappear after stitching.

4. Serging curves

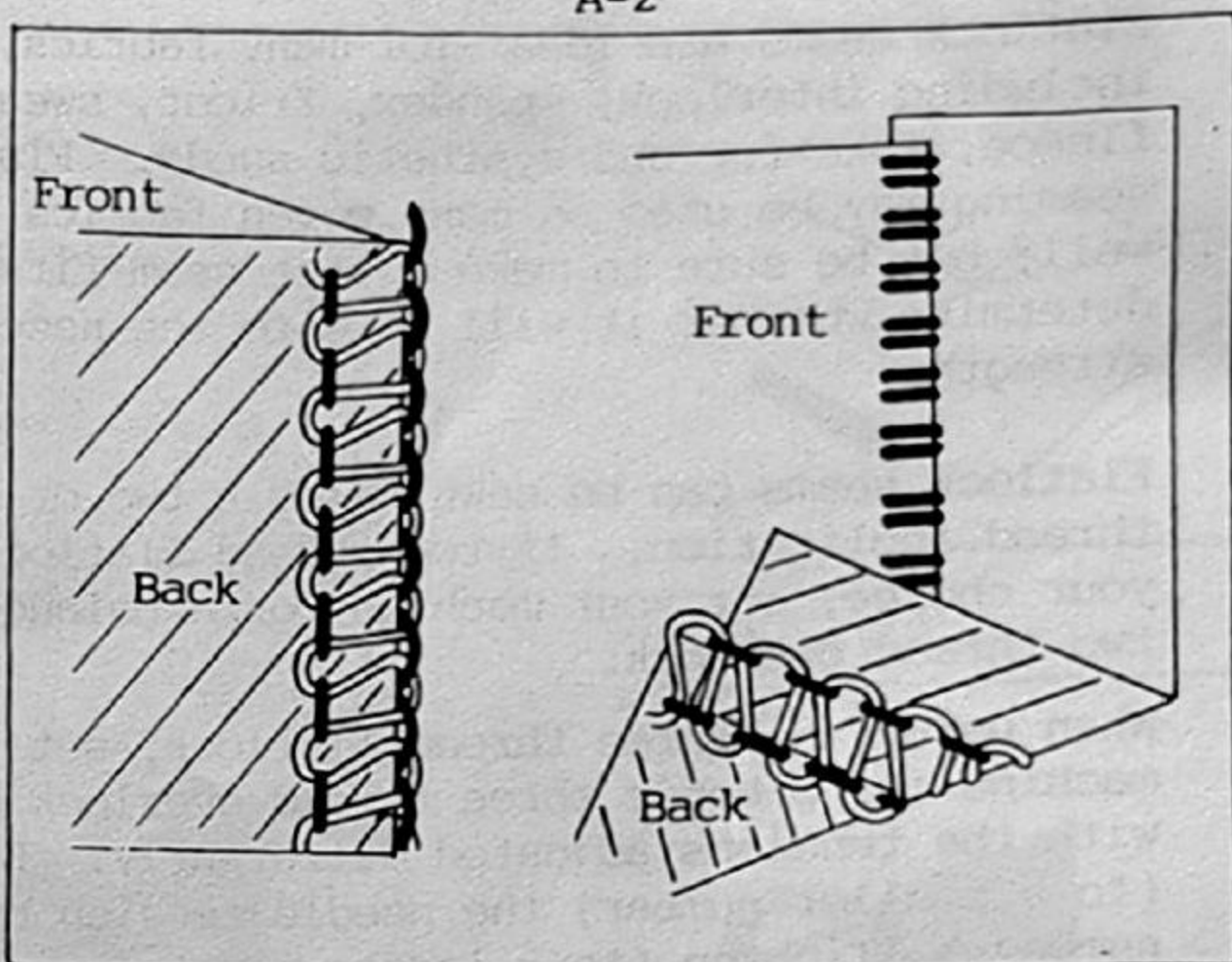
To serge around inside or outside curves, handle fabric as you do in conventional sewing, but guide your fabric into the knife, not the needle. Remember, cutting takes place before sewing. Also, since the long serger presser foot holds the fabric more securely, you may need to raise and lower the presser foot several times to work around very tight curves.

5

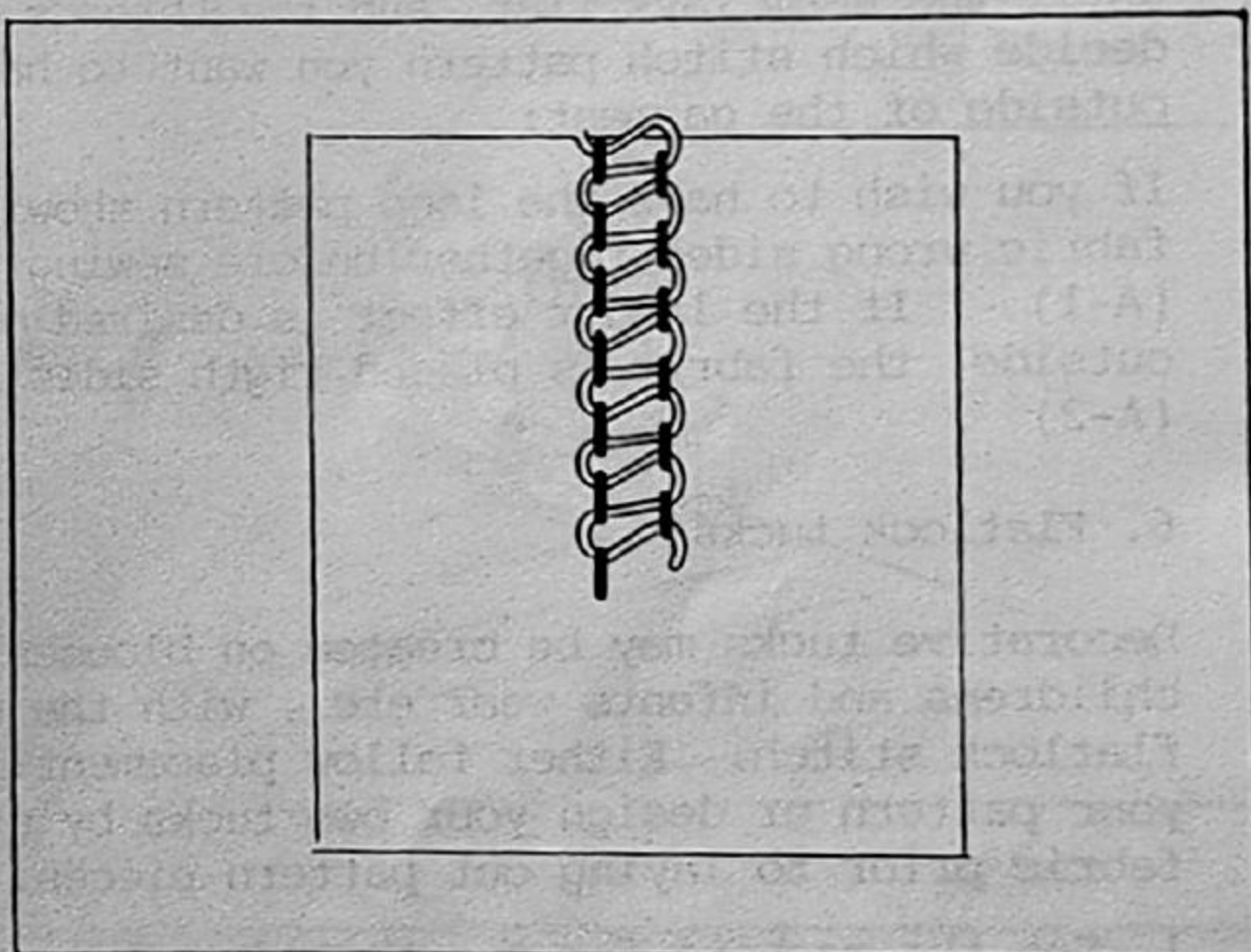
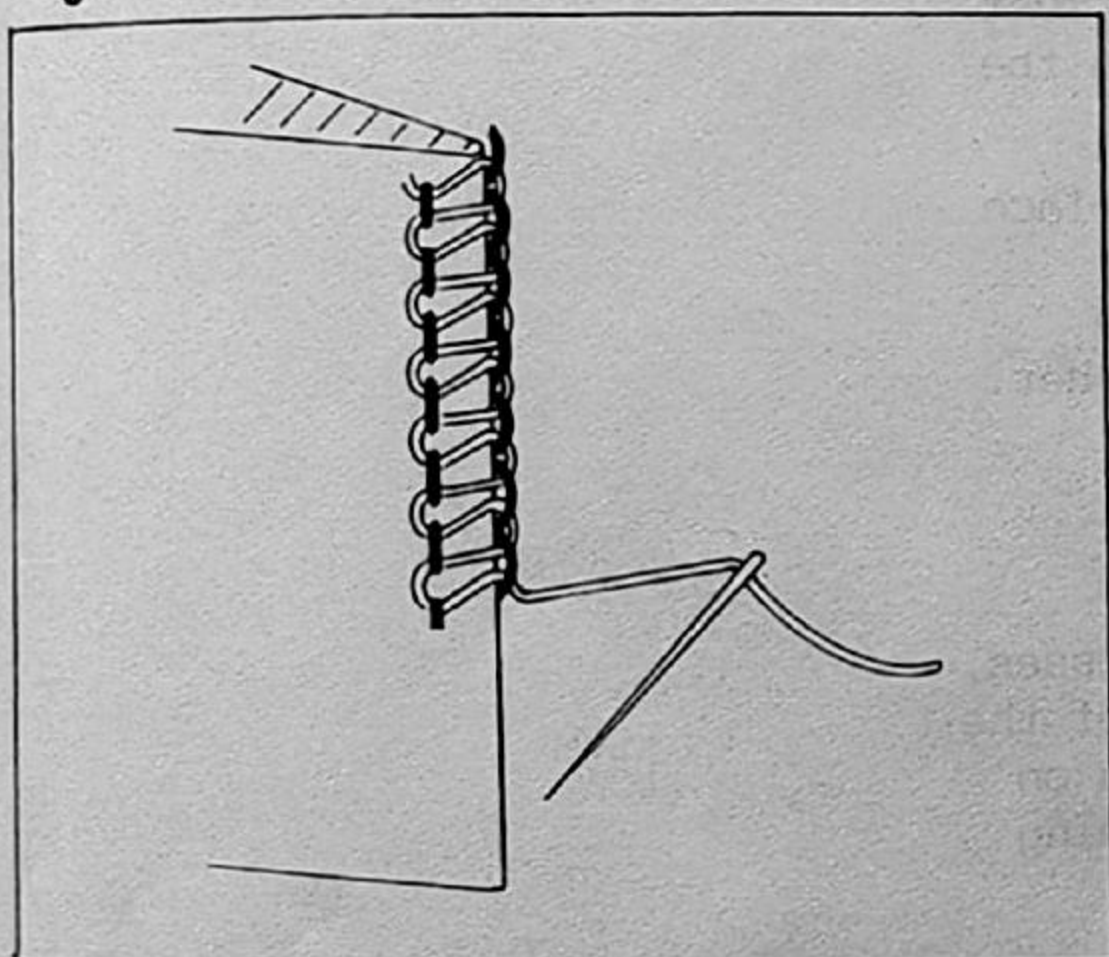
A-1



A-2



6



5. Flatlock seams

Flatlock seams are ideal for many fabrics, including interlock, spandex, tricot, sweatshirt fleece, fake-fur and synthetic suede. Flatlock seaming may be used on many woven fabrics as well, but be sure to make a test seam first to determine whether it will have to the necessary strength.

Flatlock seams can be sewn using a two or three thread application. If two thread flatlock is your choice, set your machine for a balanced two thread overlock.

When using the three thread flatlock, set your machine for a basic three thread overlock except with the tensions adjusted differently. Loosen (to a smaller number) the needle tension by two numbers. Tighten (to a larger number) the lower looper by two numbers.

In any instance, the seam should be considered "decorative" because the thread pattern will show on the outside as well as the inside of the garment. After sewing, the two fabric layers are pulled until the seam lays flat, and the threads form must decide which stitch pattern you want to have on the outside of the garment:

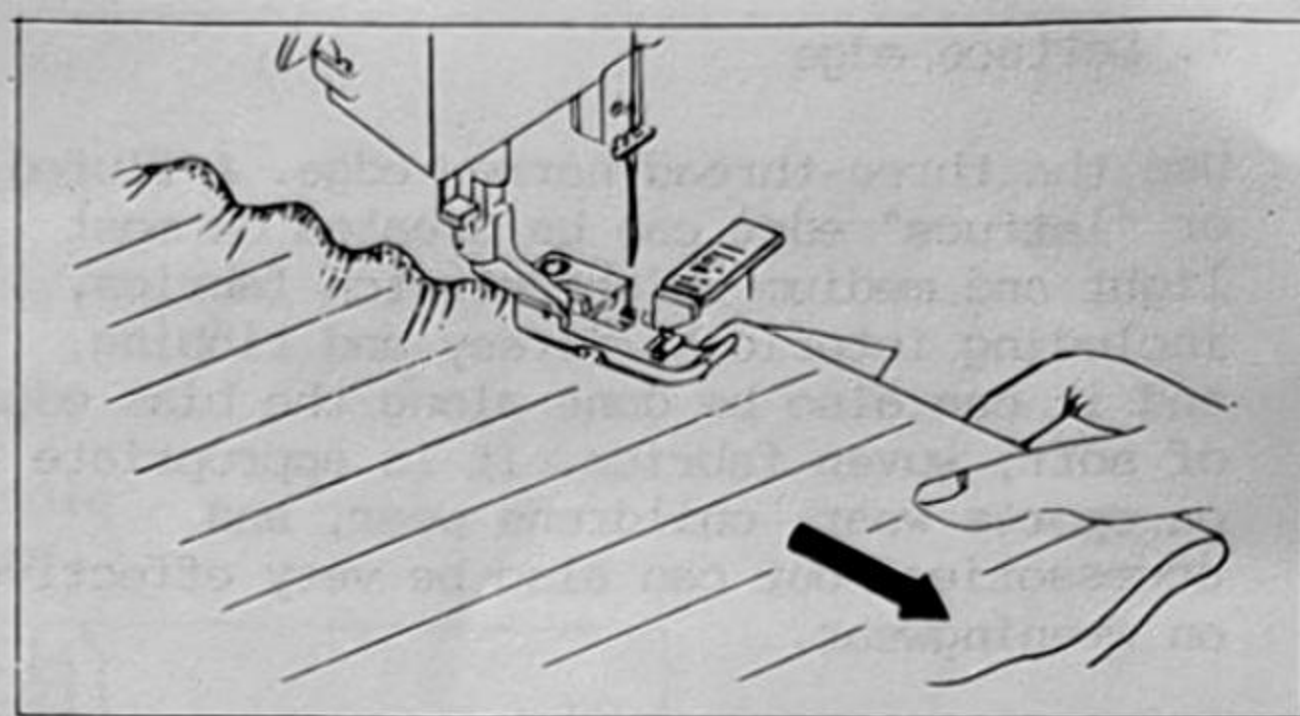
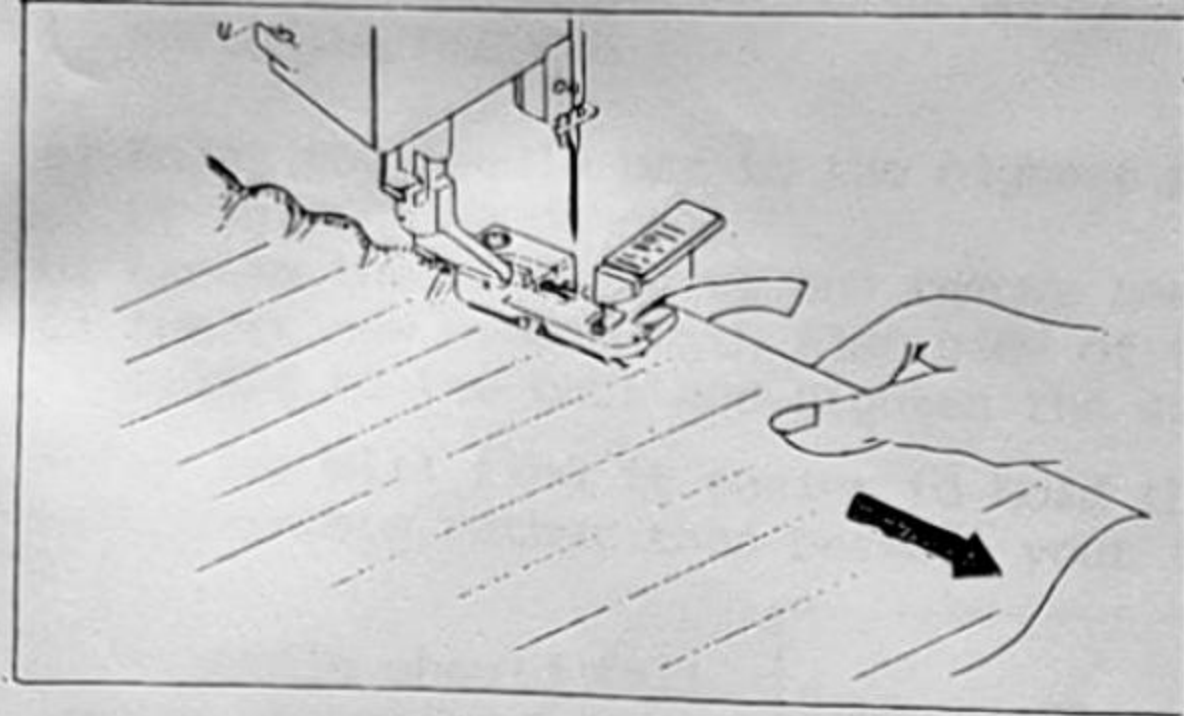
If you wish to have the loop pattern showing, place fabric wrong sides together before sewing seam.

- (A-1) If the ladder effect is desired on the outside, the fabric is placed right sides together.
(A-2)

6. Flatlock tucks

Decorative tucks may be created on blouses, dresses, childrens and infants wear etc., with the use of the flatlock stitch. Either follow placement lines on your pattern or design your own tucks by stitching fabric prior to laying out pattern pieces.

1. Set the machine for two-thread sewing with stitch length and width as desired for finished look.
2. Disengage the cutting knife(LOCK position of knife position selector knob.).
3. Fold fabric - right side out - along tuck placement lines.
4. Position fabric under the presser foot with fold aligned with the right edge of the needle plate, and stitch the tuck to desired ending point.
5. Clear the stitch fingers, and chain off the fabric.
6. CLip thread, leaving a 3-4" chain on fabric.
7. Gently pull the fabric to flattern the stitches.
8. Thread the chain through a large-eyed needle, sew to back side of fabric and secure.

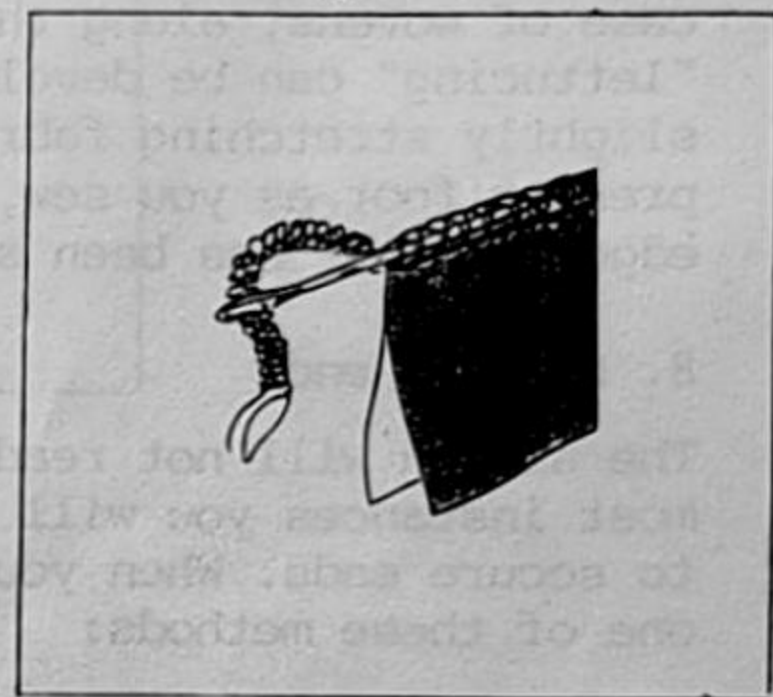
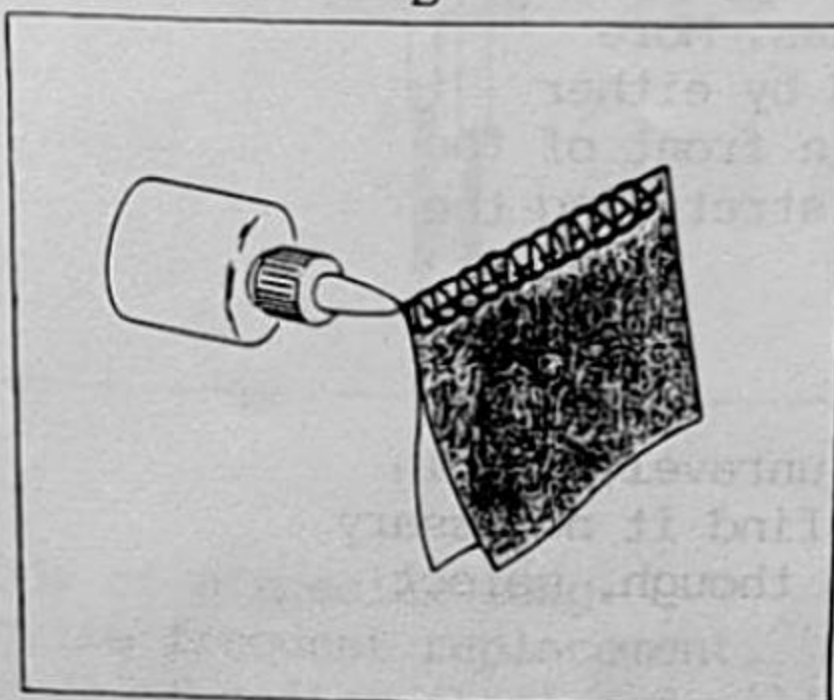
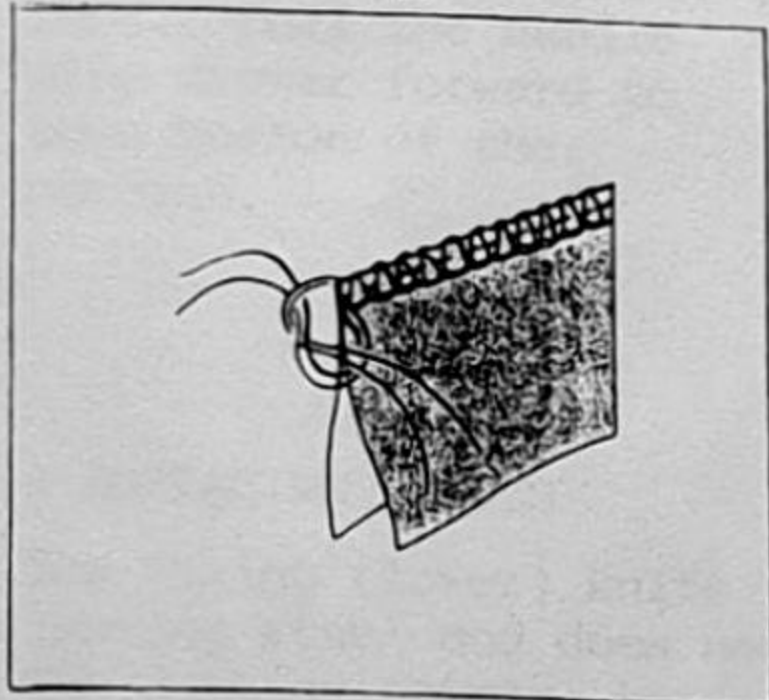


8

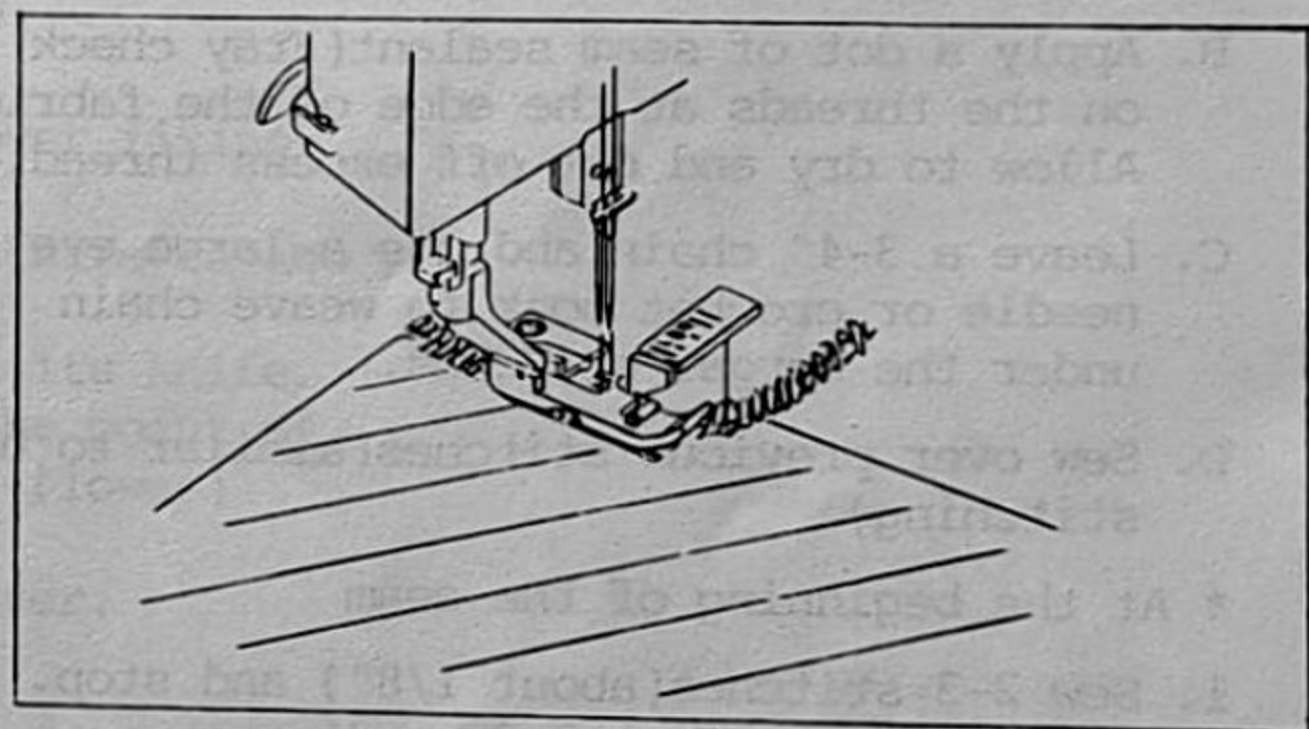
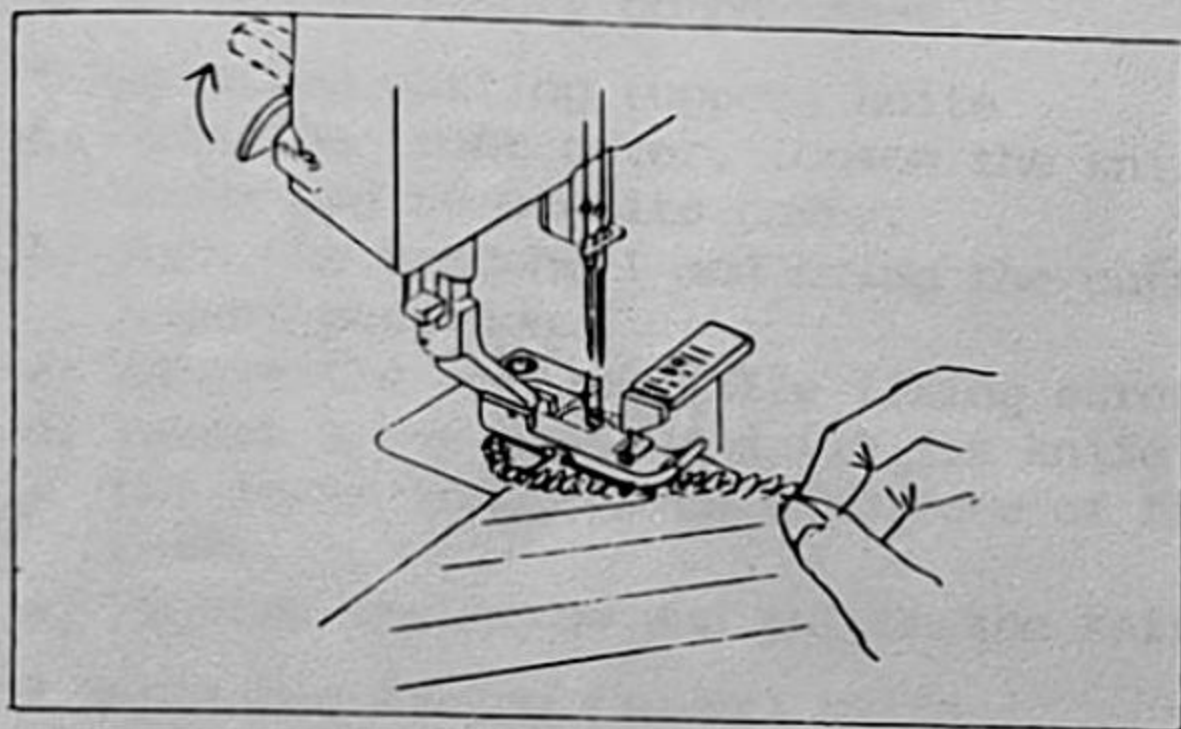
A

B

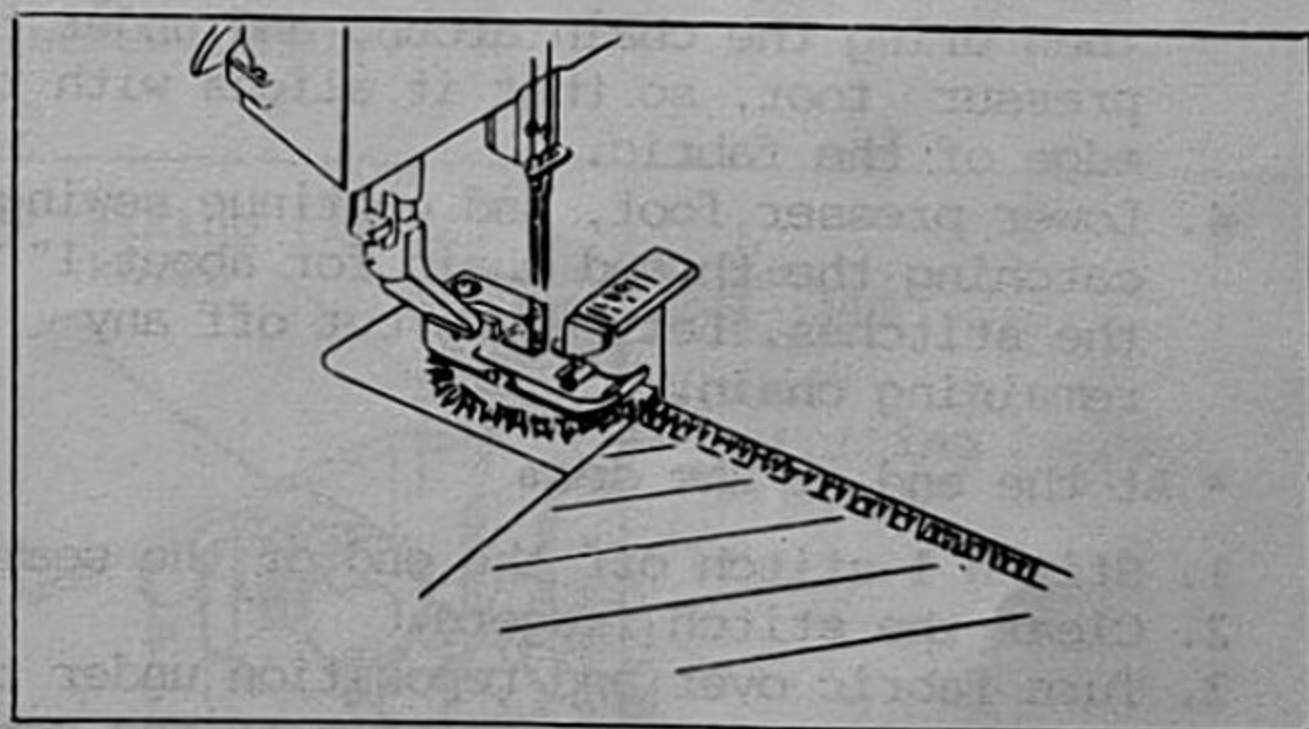
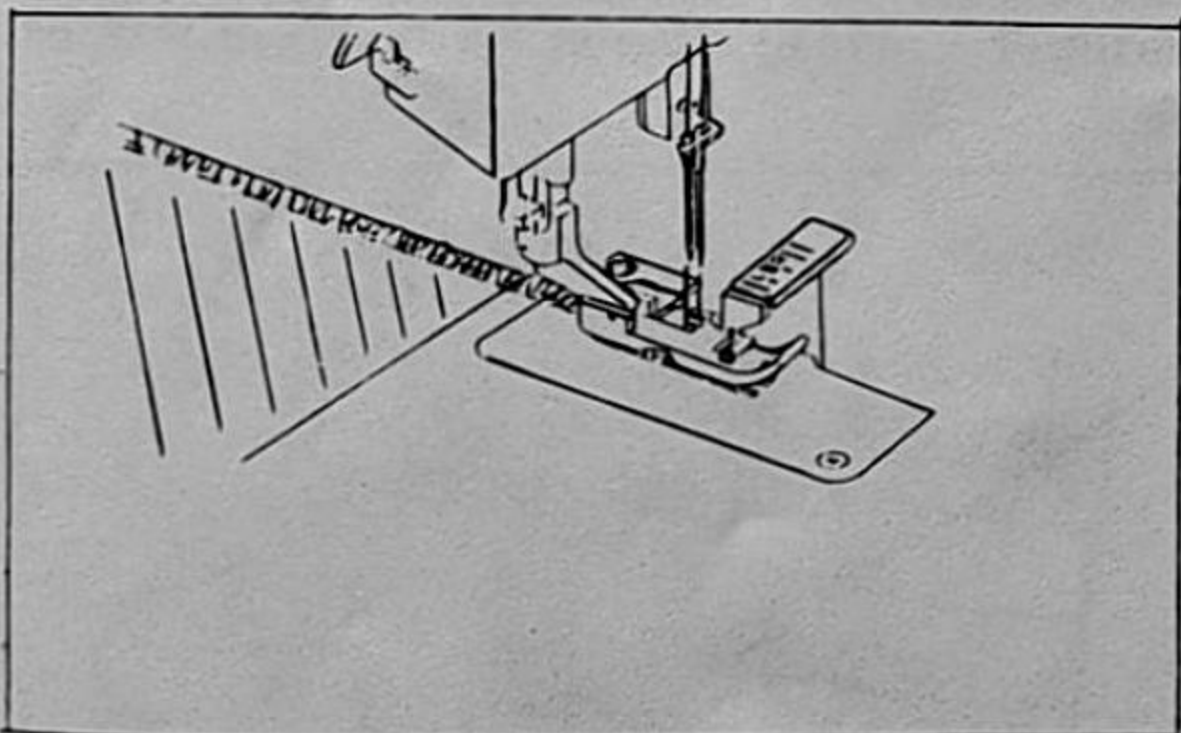
C



D-1



D-2



7. Lettuce edge

Use the three-thread narrow edge. A fluted, or "lettuce" edge can be created on most light and medium weight stretch fabrics, including interlock, jersey and ribbing, and it can also be done along the bias edge of soft, woven fabrics. It is appropriate on sports wear, childrens wear, and accessories, but can also be very effective on eveningwear.

Edge the fabric in the direction of greatest stretch, usually the crossgrain, or in the case of wovens, along the bias. More "lettucing" can be developed by either slightly stretching fabric in front of the presser foot as you sew, or stretching the edge after it has been sewn.

8. Locking ends

The stitch will not readily unravel, and in most instances you will not find it necessary to secure ends. When you do, though, select one of these methods:

- A. Leaving a 3" chain, separate threads and tie a knot.
- B. Apply a dot of seam sealant(Fray check TM) on the threads at the edge of the fabric. Allow to dry and cut off excess thread.
- C. Leave a 3-4" chain and use a large eye needle or crochet hook to weave chain under the serged stitches.
- D. Sew over previous stitches(similar to back stitching)

* At the beginning of the seam

- 1. Sew 2-3 stitches(about 1/8") and stop.
- 2. Raise presser foot and needle.
- 3. Smooth out the chain with your fingers, then bring the chain around and under the presser foot, so that it aligns with the edge of the fabric.
- 4. Lower presser foot, and continue sewing, catching the thread chain for about 1" in the stitches. Let knives cut off any remaining chain.

* At the end of the seam

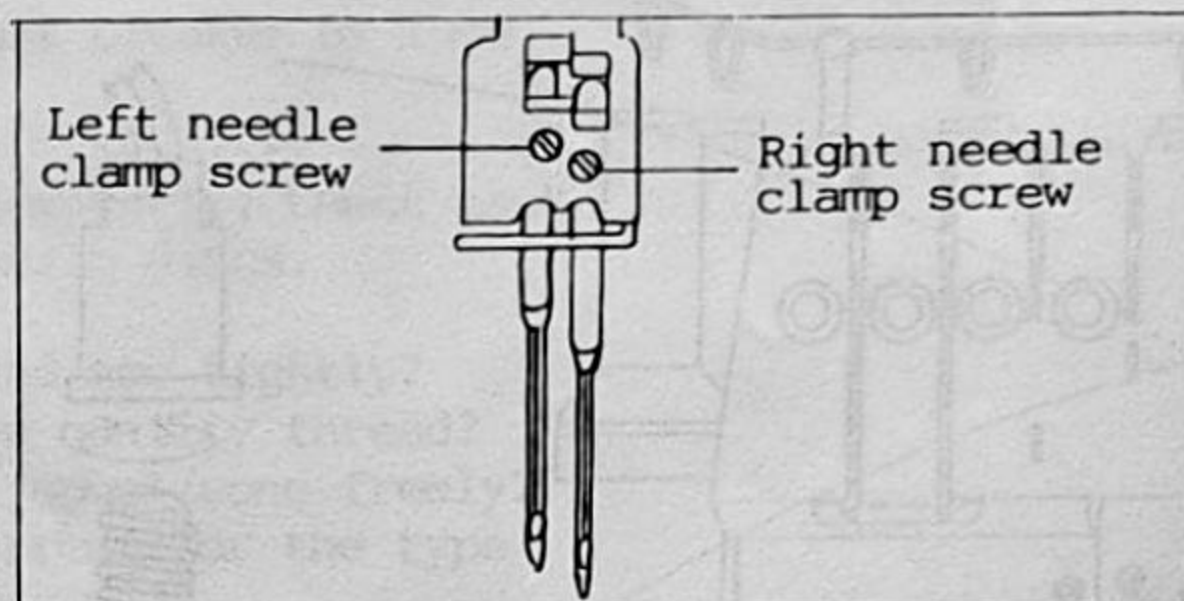
- 1. Stitch 1 stitch off the end of the seam.
- 2. Clear the stitch fingers.
- 3. Turn fabric over and reposition under the presser foot with the needle at the seam edge.
- 4. Sew 5-6 stitches over the previous stitches, being careful not to cut previous stitches, then chain off the fabric.

1 REPLACING NEEDLES

- Raise the needle bar to the highest position by turning handwheel.
- Loosen the clamp screw and remove needle.
- Insert new needle with flat side of the needle to the back and tighten the screw:

Note: You will find it easier to hold the needle with tweezers rather than between your fingers.

If a needle should fall inside the machine when changing, using the handle pull the needle drop drawer forward to open button of the machine.



2 REPLACING KNIVES

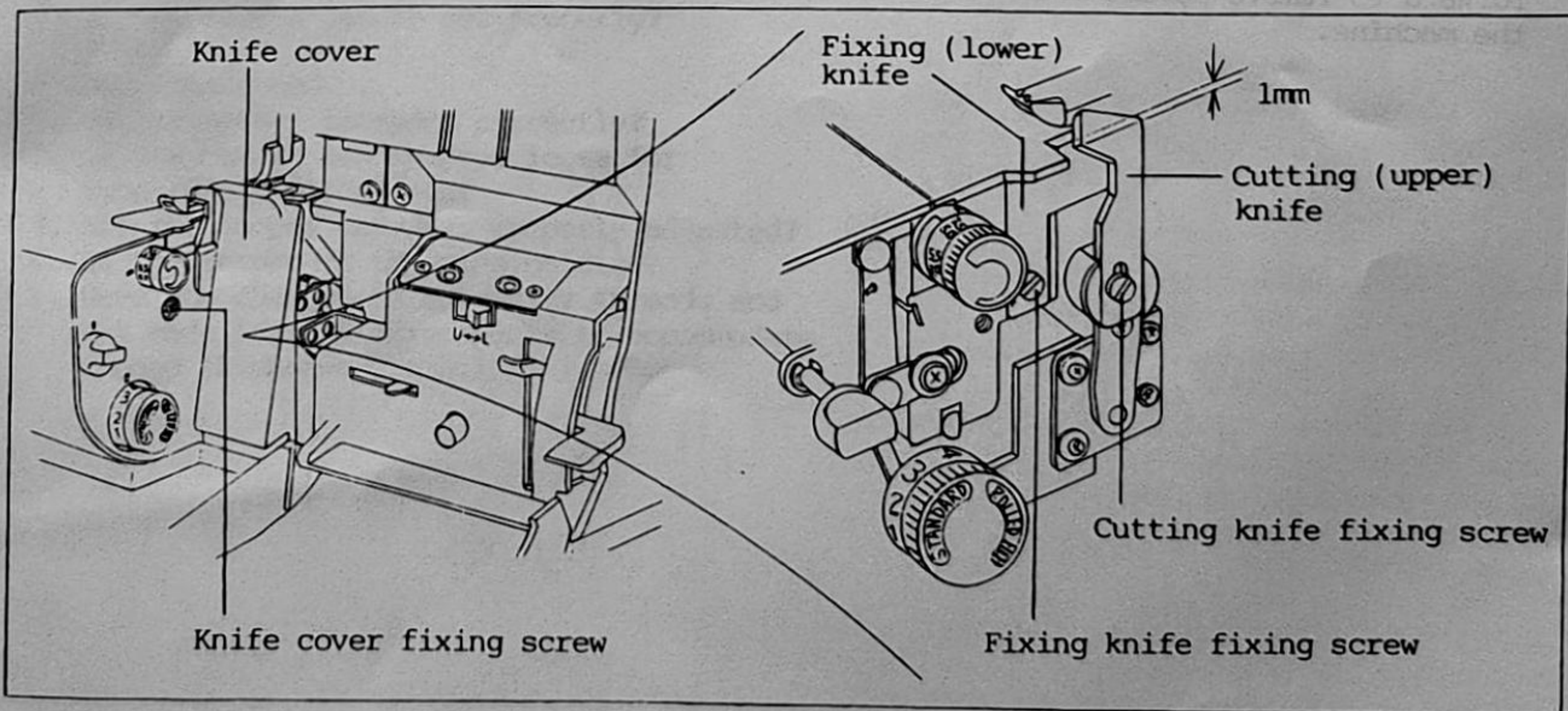
The fixing (lower) knife is made of a special long-lasting steel and does not require frequent replacement. The cutting (upper) knife is made of softer steel and will need to be replaced periodically. A spare cutting knife is in the accessory compartment.

* Replacing cutting (upper) knife

- Open the front cover, loosen the knife cover fixing screw and remove its cover.
- Turn the handwheel and bring the cutting knife to the lowest position.
- Remove the cutting knife fixing screw and its knife.
- Insert a new knife and fix its knife at the point of 1mm lower than the cutting face of fixing (lower) knife.
- Tighten the screw and put on the knife cover.

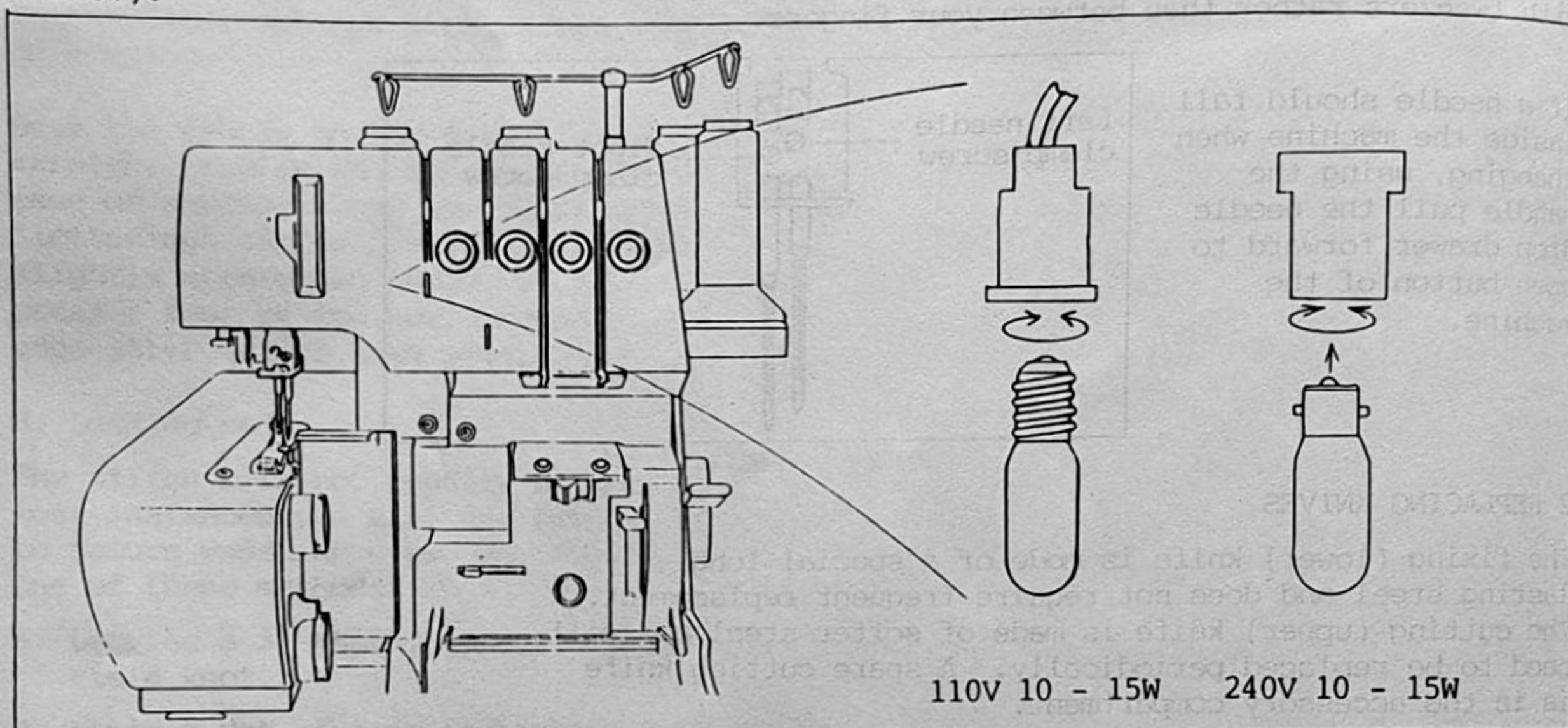
* Replacing fixing (lower) knife

After removing the cutting knife, loosen the screw and remove the fixing knife. Correspond the cutting face to the surface of needle plate. Tighten the screw firmly.



3 REPLACING A LIGHT BULB

- Turn the power "off" and do not attempt to change the bulb until it is cool.
- Open the front cover, loosen the knife cover fixing screw and remove the knife cover.
- Remove old bulb and insert new one (10 - 15W/ 110V, over 200 voltage countries 10 - 15W/ 240V).



4 CLEANING

Your serger will operate at best performance for many years if kept clean at all times.

There is no need to put oil for many years because the major moving parts are made from oil-impregnated metal.

Remove the knife cover and the needle plate, use the cleaning brush often during garment construction to keep lint off the the knives, needles and feed dogs.

Pull the handle of the needle drop drawer forward to remove derise from inside of the machine.

5 TROUBLE SHOOTING GUIDE

Before taking your machine in for service, please check the following:

* Machine fails to start.....

1. Are electrical pulgs prpperly connected?
2. Is the power switch turned on?
3. Is the position of machine lock button release lever in the left?
4. Check household circuit breaker or fuse.

* Thread breaks.....

1. Is machine threaded correctly? Check each thread guide, all tension discs.
2. Is the needle bent?
3. Is the tension adjsuted too tightly?
4. Are you using inferior quality thread?
5. Is thread feeding off spool/cone freely?
6. Is the needle size correct for the type fabric being used?
7. Is telescopic thread guide up?

* Threading mechanism does not work.....

1. Did you lock the handwheel with the machine lock button?
2. Did you insert thread into threading hole about 2cm?
3. Is the thread size too large?

* Skipped stitches.....

1. Is the needle bent or worn?
2. Is the needle inserted correctly?
3. Is the serger threaded correctly?
4. Is the presser foot properly adjusted?

* Fabric will not feed into machine.....

1. Is the presser foot down?
2. Are the knife blades sharp?
3. Is the presser foot prooerly adjusted?
4. Are the knife blades free of lint?
5. Are the feed dogs and presser foot free of lint?
6. Are the knives properly set and is the upper knife against the lower knife?
7. Is the stitch length set properly?

* Seam unbalanced.....

1. Is the serger threaded correctly?
2. Is the needle tension too loose for type fabric being used?
3. Are the looper tensions properly adjusted?
4. Is the thread in the tension disc?
5. Have you changed to specialty threads and not made tension adjustments to accommodate thread thickness variation?

Item	Specification
Stitch width ---- Standard	3.5 - 7.5mm
Narrow rolled hem	1.5mm
Stitch length --- Standard	0 - 4mm
Narrow rolled hem	0 - 4mm
Number of threads	4, 3 or 2 thread
Needle system	ORGAN -- HA X 1SP #75(#11), #90(#14)
Maximum sewing speed	1,500 rpm
Machine weight	7.3kg(incl. motor)
Lamp	15W/110V 10W/240V(over 200 voltage country)

DO'S AND DON'TS

1. Always be aware of the up-and-down movement of the needle and do not turn your attention from the machine while it is running.
2. When changing the needle, the presser foot, or any other parts, always turn the power switch to "off".
3. Do not place anything on the speed controller, otherwise the machine will start inadvertently, or the controller or motor may burn out.
4. The maximum permissible power for the sewing lamp bulb is 10 - 15 watts 100 volts or 10 - 15 watts 240 volts(over 200 voltage country).
5. When using your serger for the first time, place a piece of waste fabric under the presser foot and run the machine without thread for a few minutes. Wipe away any oil which may have appeared.
6. Do not pull fabric from rear of machine. This may damage looper mechanism.
7. To prevent possible injury, always avoid body contact with any moving parts and machine mechanism.

SPECIAL CAUTION : Unplug the power cord from the power source when the machine is not in use.

OPTIONAL THREADING TOOL

Optional threading tool is in the accessory case. When Jet-Air threading system does not work suddenly, please use optional threading tool as an emergency tool for looper threading.

Lock the handwheel with lock button (see page 5 & 6), insert the threading tool into the right or left of looper threading port.

Put the thread into the rim of threading tool as illustration, pull out its tool from a thread eye of looper. Move the lock button release lever to the left(see page 9 & 10).

NOTE: When using threading tool for loopers threading, it is emergency only. Please contact your dealer as soon as possible.

